Earth Day 2021 and Sustainable Existence on our Planet

Update October 3, 2021

Dear Mayor Schaaf,

In one month, on November 4, 2021, you will complete your seventh year as Mayor of Oakland. Thank you for your active and courageous leadership during these seven years as you have grappled with a diverse array of challenging issues. (Unfortunately, the Mayor of Oakland is limited to two terms, so you won't be able to run for reelection in November 2022.)

My annual 2021 Earth Day essay to you (provided below) contained the following:

Human population growth and global warming

"Unsustainable population levels impair our environment in myriad ways, including global warming. We cannot mitigate nor resolve this grave problem of global warming just by making per capita reductions in CO_2 emissions if population growth negates these reductions. Energy-saving technology has reduced per capita carbon dioxide emissions since the first Earth Day (April 22, 1970). Total emissions are higher, however, because of population growth. Even if mileage standards rose to 47 mpg as proposed by the Obama administration rather than 37 mpg as counter-proposed by the Trump administration, total carbon dioxide emissions would still rise because of population growth, negating the benefits of higher mpg standards. **Human population growth is a major, if not the major, contributor to global warming."**

Our Leaders are failing to make the connections between human population growth global warming

Our leaders are failing to make the connections between human population growth and global warming. Governor Gavin Newsom has spoken out strongly against global warming, for example, in his communications with former President Donald Trump. Newsom correctly perceives the reality of global warming, **but he has not indicated in his public statements** that he perceives the connection between population growth and global warming. Rather, he appears to believe that we can just keep our population growing (and benefit from the economic growth that population growth drives). Newsom recently signed a funding package that will lead to the creation of 84,000 new homes. Recall that when he was campaigning for governor, Newsom announced his "audacious" Marshall Plan to build more housing, with a goal of 3.5 million new housing units to be built by 2025–about 500,000 per year. (Governor Newsom and his wife, Jennifer Siebel Newsom, have four children.)

Not even a passing thought

Governor Newsom is rightfully concerned about providing housing for our growing population. However, it appears that he and other population growth advocates such as California State Senator Scott Wiener have **not given even a passing thought** to what population levels are compatible with sustainable existence in California and in our nation at our minimum acceptable standard of living. At the same time, they consider themselves to be leaders in the fight against global warming.

Contradictory and incompatible positions

Despite the clear link between population size and carbon dioxide emissions and despite solid research which shows that the world population of about 7.5 billion is at least three times its sustainable level and that the U.S. and California populations (about 327 million and 40 million, respectively) are at least twice their sustainable levels, our leaders such as Governor Newsom enact policies which foster population

growth. **However, being against global warming and for population growth are contradictory and incompatible positions. More broadly, being for sustainable existence on our planet and for population growth (and the economic growth it drives) are contradictory and incompatible positions.**"

Checking with Our Planet First

The *East Bay Times* recently ran an article entitled "Why California's youth population is shrinking" in which business leaders and academics worried about California's slowing population growth (not enough babies) and California's future labor force. For example, Dowell Myers, a demographer and public policy professor at the University of Southern California, commented, "It's that we need them [babies] to be future workers, future taxpayers, and future consumers…"

Dowell and others are **asking the wrong question**. The most important question business and all of us should ask is: What is the sustainable population of our state, not how large a population we need to provide the workers that business says it needs. **We must check with our planet first.**

We are **not** checking with our planet first. In California, we are plowing ahead at full speed to build more housing for a growing population without considering whether our state and our nation has the carrying capacity to support these population levels.

Returning to Taking from Our Planet What It Can Restore

Let us rededicate ourselves in 2021 to bringing our demands on our planet back into balance with what it can restore. Some political and academic factions will oppose such measures because they might impede population growth and the economic growth it drives. Don't they realize that the economy depends on the environment (or more

generally the Earth's carrying capacity), not the other way around? The environment would do just fine without the economy, but not the other way around. Or as the Prince of Wales put it, "**the economy is a wholly owned subsidiary of Nature and not the other way around**" (*Newsweek*, 12/14/2009).

Sincerely,

William E. Jackman, PhD
Statistician/SAS & SQL Programmer
Oakland, California
October 3, 2021

I am a second-generation Irish-American who grew up with immigrant Irish grandparents and aunts in Oakland. I am a graduate of Oakland High School and am fluent in Spanish.

Earth Day 2021 and Sustainable Existence on our Planet

April 15, 2021

Dear Mayor Schaaf,

Thank you for your leadership and hard work in dealing with a historic health crisis, COVID-19, and its debilitating effects on our economy including persistently high unemployment. This 2021 essay, my seventh annual Earth Day essay, focuses on a different, longer-term crisis about which I have written to you every Earth Day since you were elected Mayor of Oakland on November 4, 2014. The essence of this longer-term

crisis is that **we are taking more from our planet each year than it can restore** in order to maintain and/or raise the standard of living of growing US and world populations.

Sustainable Existence on Our Planet

Earth Day is dedicated to the health of our Planet and to our sustainable existence on it. Sustainability refers to the population size which our Planet can **sustain indefinitely**. It can sustain a larger population at subsistence levels at which per capita resource requirements are low than it can at higher standards of living such as those of the United States and western Europe today at which per capita resource requirements are much higher. Our standard of living includes environmental amenities we choose such as open space for species preservation (biodiversity) and the preservation of wilderness; these environmental amenities add to our quality of life and happiness.

U.S. and World Populations Are Not Sustainable.

Studies (such as those at www.npg.org) appear regularly and present the same conclusion: **the current world population of 7.9 billion, the current United States population of 332.5 million, and the current California population of 40 million are far too large to be sustainable.** What population levels are sustainable? Assuming that future generations will not want to live at subsistence levels, **current world population is at least three times its sustainable level and the U.S. and California populations are at least twice their sustainable levels.** A recent study concluded that the number of humans Earth can sustain long term is around 1.9 billion people, which was roughly the global population 100 years ago in 1919. Putting this in perspective, the current world population of 7.9 billion (4.2 times the sustainable level) is projected to grow to 9.7 billion (5.1 times the sustainable level) by 2050 (UN projection).

Population Levels and Global Warming.

Unsustainable population levels impair our environment in myriad ways, including global warming. We cannot mitigate nor resolve this grave problem of global warming just by making per capita reductions in CO_2 emissions if population growth negates these reductions. Energy-saving technology has reduced per capita carbon dioxide emissions since the first Earth Day (April 22, 1970). Total emissions are higher, however, because of population growth. Even if mileage standards rose to 47 mpg as proposed by the Obama administration rather than 37 mpg as counter-proposed by the Trump administration, total carbon dioxide emissions would still rise because of population growth, negating the benefits of higher mpg standards. Human population growth is a major, if not **the** major, contributor to global warming.

Population Levels Ignored

Despite the clear link between population size and carbon dioxide emissions, political/economic commentators such as Dan Walters (CalMatters) and Jonathan Lansner (East Bay Times) are calling for faster population growth, for example, Walter's January 5, 2021 column "Slow population growth will hurt state's future." Politicians and business people are calling for more housing to accommodate California's population growth. And cities are responding: "Berkeley starts plans for 9,000 new homes" and "Alameda's building boom": (San Francisco Chronicle, March 27, 2021),

It does not appear that these proponents of population growth and the housing growth to accommodate it have given even a passing thought to what population levels are compatible with sustainable existence in California and in our nation at our minimum acceptable standard of living. Yet these growth proponents are presumably concerned about global warming. However, **being against global warming and for population growth are contradictory and incompatible positions. More broadly, being for**

sustainable existence on our planet and for population growth (and the economic growth it drives) are contradictory and incompatible positions.

Checking with Our Planet First

I wrote to you in my Earth Day essay of 2019,

"…the most important question business and all of us should ask is: What is the sustainable population of our state, not how large a population we need to provide the workers business says it needs. **We must check with our Planet first.**"

We are **not** checking with our planet first. In California, we are plowing ahead at full speed to build more housing for a growing population without considering whether our state and our nation has the carrying capacity to support these population levels.

Returning to Taking from Our Planet What It Can Restore

Let us rededicate ourselves this Earth Day 2021 to bringing our demands on our planet back into balance with what it can restore. Some political factions will oppose such measures because they might impede population growth and the economic growth it drives. Don't they realize that the economy depends on the environment (or more generally the Earth's carrying capacity), not the other way around? The environment would do just fine without the economy, but not the other way around. Or as the Prince of Wales put it, "the economy is a wholly owned subsidiary of Nature and not the other way around" (*Newsweek*, 12/14/2009).

Sincerely,

William E. Jackman, PhD
Statistician/SAS & SQL Programmer

Oakland, California

April 15, 2021

Earth Day 2020 and Sustainable Existence on our Planet

Update September 13, 2020

Dear Mayor Schaaf,

My annual Earth Day essay for 2020 (shown below) contained the following:

"Returning to global warming, we cannot mitigate nor resolve this grave problem just by making per capita reductions in CO_2 emissions if population growth negates these reductions. Energy-saving technology has reduced per capita carbon dioxide emissions since the first Earth Day (April 22, 1970). Total emissions are higher, however, because of population growth. Even if mileage standards rose to 47 mpg as proposed by the Obama administration rather than 37 mpg as counter-proposed by the Trump administration, total carbon dioxide emissions would still rise because of population growth, negating the benefits of higher mpg standards.

"Despite the clear link between population size and carbon dioxide emissions and despite solid research which shows that the world population of about 7.5 billion is at least three times its sustainable level and that the U.S. and California populations (about 327 million and 40 million, respectively) are at least twice their sustainable levels, you have been a leader of policies which foster population growth. **Being against global warming and for population growth are contradictory and incompatible**

positions. More broadly, being for sustainable existence on our planet and for population growth (and the economic growth it drives) are contradictory and incompatible positions."

This past Friday, September 11, 2020, Governor Gavin Newsom spoke out strongly against global warming and against "the B.S. being spewed by a very small group of people that have an ideological reason to advance the cause of a 19th-century framework." Newsom correctly perceives the reality of global warming, **but he has not indicated in his public statements** that he correctly perceives the connection between population growth and global warming. Rather, he appears to believe that we can just keep our population growing (and benefit from the economic growth that population growth drives). In September, 2019, for example, Newsom announced his "audacious" Marshall Plan to build more housing, with a goal of 3.5 million new housing units to be built by 2025–about 500,000 per year.

Accommodating Population Growth

You, Mayor Schaaf, are rightfully concerned about providing housing for our growing population. You, Governor Gavin Newsom, and California State Senator Scott Wiener have been pushing for measures to build more housing to accommodate this population growth. However, it appears that you and they have **not given even a passing thought** to what population levels are compatible with sustainable existence in California and in our nation at our minimum acceptable standard of living. At the same time, all three of you consider yourselves to be leaders in the fight against global warming.

Being against global warming and for population growth are contradictory and incompatible positions. More broadly, being for sustainable existence on our

planet and for population growth (and the economic growth it drives) are contradictory and incompatible positions."

Sincerely,

William E. Jackman, PhD
Statistician/SAS & SQL Programmer
Oakland, California
September 13, 2020

Earth Day 2020 and Sustainable Existence on our Planet

April 25, 2020

Dear Mayor Schaaf,

Thank you for your hard work to protect us from COVID-19 as we try to prevent its devastating spread. This letter does not deal with this crisis, but rather with a different, longer-term crisis about which I have written to you every Earth Day since you were elected Mayor of Oakland on November 4, 2014. This year's letter, the sixth letter in this series and coinciding with the 50th anniversary of Earth Day, is entitled "Earth Day 2020 and Sustainable Existence on our Planet." (It also attached.) The essence of this longer-term crisis is that we are taking more from our planet each year than it can restore in order to maintain and/or raise the standard of living of growing US and world populations.

Sustainable Existence on Our Planet

Earth Day is dedicated to the health of our Planet and to our sustainable existence on it. Sustainability refers to the population size which our Planet can **sustain indefinitely**. It can sustain a larger population at subsistence levels at which per capita resource requirements are low than it can at higher standards of living such as those of the United States and western Europe today at which per capita resource requirements are much higher. Our standard of living includes environmental amenities we choose such as open space for species preservation (biodiversity) and the preservation of wilderness; these environmental amenities add to our quality of life and happiness.

U.S. and World Populations Are Not Sustainable.

Studies (such as those at www.npg.org) appear regularly and present the same conclusion: **the current world population of 7.8 billion and the current United States population of 329 million are far too large to be sustainable.** It is very noteworthy that studies have **not** appeared which challenge these conclusions and which posit, for example, that the sustainable world population is 9.8 billion or that the sustainable United States population is 438 million as they are forecast to be by 2050. (Immigration is expected to account for 82% of U.S. population growth by 2050.) Instead of challenging these studies, **growth enthusiasts just ignore them** and with tunnel vision plow full-speed ahead on our population and economic growth trajectory.

Accommodating Population Growth

You are rightfully concerned about providing housing for our growing population. You, Governor Gavin Newsom, and California State Senator Scott Wiener have been pushing for measures to build more housing to accommodate this population growth. However, it appears that you and they have not given even a passing thought to what population levels are compatible with sustainable existence in California and in our nation at our

minimum acceptable standard of living. At the same time, all three of you consider yourselves to be leaders in the fight against global warming.

From my Earth Day 2019 letter to you (copied below),

"Despite the clear link between population size and carbon dioxide emissions and despite solid research which shows that the world population of about 7.5 billion is at least three times its sustainable level and that the U.S. and California populations (about 327 million and 40 million, respectively) are at least twice their sustainable levels, you have been a leader of policies which foster population growth. Being against global warming and for population growth are contradictory and incompatible positions. More broadly, being for sustainable existence on our planet and for population growth (and the economic growth it drives) are contradictory and incompatible positions."

Sincerely,

William E. Jackman, PhD
Statistician/SAS & SQL Programmer
Oakland, California
April 25, 2020

Earth Day 2019 and Sustainable Existence on our Planet

Dear Mayor Schaaf,

Below is the letter I wrote to you last year entitled "Earth Day 2018 and Sustainable Existence on our Planet." I have written an annual version of this letter to you every Earth Day since you were elected Mayor of Oakland on November 4, 2014. So, the 2018 edition was the fourth edition. My 2019 letter to you is the fifth edition. You have never acknowledged my Earth Day letters to you. Moreover, and more worrisome, it appears, based on your public statements, that you do not comprehend the graveness of the issues I have written to you about.

Global warming (or climate change) is the most salient current issue pertaining to the health and viability of our planet. Global warming, however, is just one aspect of how we humans our using our planet in unsustainable ways. Our planet provides us with resources and environmental services that have made human life and our current standard of living possible. Yet each year we take more from our planet then it can restore. We are getting away with this in the short run, but future generations will pay the price of our shortsightedness and selfishness and will curse our memory.

Returning to global warming, we cannot mitigate nor resolve this grave problem just by making per capita reductions in CO_2 emissions if population growth negates these reductions. Energy-saving technology has reduced per capita carbon dioxide emissions since the first Earth Day (April 22, 1970). Total emissions are higher, however, because of population growth. Even if mileage standards rose to 47 mpg as proposed by the Obama administration rather than 37 mpg as counter-proposed by the Trump administration, total carbon dioxide emissions would still rise because of population growth, negating the benefits of higher mpg standards.

Despite the clear link between population size and carbon dioxide emissions and despite solid research which shows that the world population of about 7.5 billion is at least

three times its sustainable level and that the U.S. and California populations (about 327 million and 40 million, respectively) are at least twice their sustainable levels, you have been a leader of policies which foster population growth. Being against global warming and for population growth are contradictory and incompatible positions. More broadly, being for sustainable existence on our planet and for population growth (and the economic growth it drives) are contradictory and incompatible positions.

I wrote to you last year,
"…the most important question business and all of us should ask is: What is the sustainable population of our state, not how large a population we need to provide the workers business says it needs. **We must check with our Planet first.**"

We are **not** checking with our planet first. In California, we are plowing ahead at full speed to build more housing for a growing population without considering whether our state has the carrying capacity to support these population levels. Columnist George Skelton of the *Los Angeles Times* recently wrote that back yards will be a thing of the past and that people will be stacked up in high-rise residences where back yards used to be. The East Bay Times runs editorials suggesting that people are selfish for wanting to retain open space which could be used to build more housing.

In fact, keeping back yards as back yards and open space as open space helps our planet because these actions militate toward lower population levels and toward sustainable existence on our planet and in our state. Higher population levels have the opposite effect. We are asking people to give up back yards and open space for the goal of having a larger population. But this goal does not merit support: it is antithetical to and incompatible with sustainable existence on our planet.

Mayor Schaaf, you have been a leader of policies which foster population growth. The main driver of population growth in California and the U.S. is immigration. The main concern with immigration is not, as President Trump says, that bad people are slipping into our country. The vast majority of immigrants are hard-working and family-oriented (I know this at a personal level: my wife grew up in Jalisco, Mexico, and we visit her small home town there twice a year). The main concern with immigration is that it drives population growth in both destination and source countries, and at this point in our planet's trajectory, population growth is not good for it, nor is it good for our nation and our state.

I am going to end this letter the way I ended it last year:

Will Oakland Take the Lead Toward Sustainable Existence on Our Planet?

To restate: No politician at the national, state or local levels, **including Oakland**, wants to touch this **most basic issue: what population levels are sustainable at our lowest acceptable standard of living.**

Dear Mayor Schaaf: I ask you to please take the lead in at least thinking about these issues and discussing them and getting others to think about them and discuss them. Unless we take measures to achieve more sustainable population levels, future generations will face **a dystopian existence -- at best**.

Breaking the Taboo on Earth Day, April 2019

I trust that you and other thinking people of goodwill will finally break the taboo against discussing sustainable population levels at Oakland's 2019 Earth Day event. I am guardedly hopeful we will not corroborate physicist Albert Einstein's assessment of

human intelligence: " Only two things are infinite, the universe and human stupidity, and I'm not sure about the former."

Thank you,

William E. Jackman, Ph.D.
Statistician / SAS & SQL Programmer
Oakland, California
April 16, 2019

I am a second-generation Irish-American who grew up with immigrant Irish grandparents and aunts in Oakland. I am a graduate of Oakland High School and am fluent in Spanish.

Earth Day 2018 and Sustainable Existence on our Planet

Sustainable Existence on Our Planet

Oakland will observe Earth Day on April 21, 2018. Earth Day is dedicated to the health of our Planet and to our sustainable existence on it. Sustainability refers to the population size which our Planet can **sustain indefinitely**. It can sustain a larger population at subsistence levels at which per capita resource requirements are low than it can at higher standards of living such as those of the United States and western Europe today at which per capita resource requirements are much higher. Our standard of living includes environmental amenities we choose such as open space for species

preservation (biodiversity) and the preservation of wilderness; these environmental amenities add to our quality of life and happiness.

U.S. and World Populations Are Not Sustainable.

Studies (such as those at www.npg.org/forum-papers2.html) appear regularly and present the same conclusion: **the current world population of 7.6 billion and the current United States population of 327 million are far too large to be sustainable.** It is very noteworthy that studies have **not** appeared which challenge these conclusions and which posit, for example, that the sustainable world population is 9.8 billion or that the sustainable United States population is 438 million as they are forecast to be by 2050. (Immigration is expected to account for 82% of U.S. population growth by 2050.) Instead of challenging these studies, **growth enthusiasts just ignore them** and with tunnel vision plow full-speed ahead on our population and economic growth trajectory.

What U.S. and World Population Levels Are Sustainable?

U.S. and world populations are already much larger than sustainable levels, and we are sentencing future generations to a dystopian existence -- at best. Reputable studies have consistently found the sustainable world population to be about 2 billion if all our Planet's human residents enjoyed a European standard of living (which requires about half the consumption levels of the average American). **Our Planet's current population is 7.6 billion, almost four times the sustainable level.** The sustainable U.S. population is approximately 150-200 million people. This was our nation's size in 1970 which scientists agree is sustainable for our resources and will allow us to protect our fragile ecosystems, conserve our finite resources, and ensure a livable America for future generations. **The current U.S. population is 327 million, roughly twice the sustainable level.**

Grave Implications of These Studies Ignored

Given the grave implications of these studies, you would expect there would be urgent discussions of what populations levels are sustainable -- even if we claim that nothing can be done to control population growth. But there is **NO** discussion whatsoever. The United States has no population policy, and the question of what the optimum size should be has never been addressed by any administration. No political party and no politician at the national, state or local levels, **including Oakland**, want to touch this **most basic issue: what population levels are sustainable at our lowest acceptable standard of living.** Yet this issue is fundamental to the future of the nation as it is faced with diminishing supporting resources.

Instead We Pursue Growth with Tunnel Vision.

We are already in the second quarter of 2018, and politicians at all levels continue to avoid mentioning **this most basic issue**. Rather they and their economists call for faster economic growth -- which is not just bad advice but dangerous advice. Walter Youngquist writes (December 2016, p.4),

"Growth is the idol that nearly all economists worship – there must be continued growth in sales and profits. Consumers must consume more. The Federal Reserve Board of the United States is committed to continued growth in the economy and strives by means of low interest rates to stimulate growth. If a company does not grow, it is shunned by investors.

"A no-growth, steady state economy is unimaginable to most economists – a notable exception being Herman Daly, who has long advocated a steady state economy. The idea is ignored. But an economy that continues to grow must consume more and more

natural resources, only to exacerbate the increasing rate of a decline in both quantity and quality of these resources"

Businesses have a deep-seated and unquestioning faith in population growth. More people mean more available workers, more customers, more sales, and more profits, especially quarterly profits -- regardless of the long-term consequences of unsustainable population levels. In fact, faster economic growth in the U.S. in recent decades compared to that in European countries and Japan has been driven largely by faster population growth, not by a substantial rise in the standard of living of average middle-class and lower middle-class Americans.

The Economy Is Totally Dependent on the Environment, not Vice Versa.

Measures to help the environment are vigorously opposed by some political factions if these measures might impede economic growth. I wrote on this topic in the attached Aug 2011 paper on economic competitiveness.

"Members of Congress and business representatives regularly oppose measures to protect the environment because these measures might 'hurt the economy.' It is dismaying to read this. Don't they consider that the economy depends on the environment (or more generally the Earth's carrying capacity), not the other way around? The environment would do just fine without the economy, but not the other way around. Or as the Prince of Wales put it, 'the economy is a wholly owned subsidiary of Nature and not the other way around' (*Newsweek*, 12/14/2009)."

Population Growth and CO_2 Emissions

On April 21, 2018, you and other political leaders will preside over Oakland's Earth Day event and will talk about the need to take care of our Planet. However, the well-being

of our Planet and our sustainable existence on it are dependent upon the demands we make upon it, and these demands are a function of population size and per-capita resource use. We cannot preserve the health of our Planet just by making per capita reductions in demands on our Planet, e.g., per capita reductions in CO_2 emissions, if population growth negates these reductions. Energy-saving technology has reduced per capita carbon dioxide emissions since the first Earth Day (April 22, 1970). Total emissions are higher, however, because of population growth. (Please see papers by Edwin S. Rubenstein, "The Impact of U.S. Population Growth On Global Climate Change" and by Leon Kolankiewicz, "Earth Day and Population: A Missed Opportunity" at www.npg.org/forum-papers2.html)

You, Mayor Schaaf, and our Governor Jerry Brown proudly see yourselves as leaders in the fight to reverse climate change which the Trump administration apparently does not think is a problem. But your support for population growth, whether direct or indirect, belies your opposition to global warming.

Can We Move to Sustainable Population Levels to Help Future Generations?

The current U.S population of 327 million is roughly twice the sustainable level of approximately 150-200 million people. So, the first step toward a more sustainable U.S. population would be to stabilize our population at its current level and then gradually reduce it. This will be difficult for U.S. residents to accomplish: The U.S. Census Bureau estimates that immigration will become the “primary driver of U.S. population growth” between 2027 and 2038. Immigration is expected to account for 82% of U.S. population growth by 2050.

There are humanitarian reasons for allowing high levels of immigration to the U.S., but the dominant reasons advanced are economic. Businesses say that they have to import workers ranging from computer programmers to dishwashers and everything in between to remain competitive.

Computer Programmers

Silicon Valley regularly reports that about two-thirds or more of its computer programmers are foreign-born. This is indeed remarkable given that California has a population of 40 million, has a widely-admired system of higher education (its three-tier system), and is much more racially and ethnically diverse then the countries which are providing us with programmers.

Construction Workers

Jared Bernstein (who was the Chief Economist and Economic Adviser to Vice President Joseph Biden in the Obama Administration) wrote, "Compared to less-educated Hispanic immigrants, white and black high-school dropouts have not been nearly as heavily employed in construction." (Eberstadt, pp. 173-174) What Bernstein observed from a national perspective can be readily observed in California and Oakland. Employers claim there is a shortage of construction workers because not enough native-born whites, blacks, Asians, or Latinos will do this work.

So according to business, California's current population of 40 million (which is among the most diverse in the world) is not large enough to provide the workforce the state needs. (To put this in perspective, California's population in 1950 was 10,586,223.) So, the state's population has to keep growing so our economy can keep growing. This line of thinking is bad for our Planet and bad for future generations. The most important question business and all of us should ask is: What is the sustainable population of our

state, not how large a population we need to provide the workers business says it needs.

(Comparisons to California's population of 40 million: Canada, 36.3 million; Australia, 24.1 million; Sweden, 9.9 million; Israel, 8.5 million; Denmark, 5.7 million; Ireland, 4.8 million; Estonia, a Baltic high-tech center (Skype and much more), 1.3 million.)

Less Diverse Nations with Smaller Populations Are Beating Us Economically.

This paper is about sustainable population levels, not economic competitiveness. This section will be a short digression. As written in the previous section, business claims that we have to import "smart" workers and lots of other workers to be competitive in world markets. Importing workers adds to our diversity, giving us an advantage, they say. But is this strategy working?

The following five countries have smaller populations and much less diverse populations than the U.S. but do not import lots of workers. Yet they are beating us economically, invalidating our claims that with a population of 327 million we have to import lots of workers to be competitive. (Data cited is for 2016.)

- Japan has a population about 39% of that of the U.S., but they had a trade surplus with us of $68.9 billion.
- Taiwan has a population about 7% of that of the U.S., but they had a trade surplus with us of $12 billion.
- South Korea has a population about 15% of that of the U.S., but they had a trade surplus with us of $27.7 billion.
- Vietnam has a population about 28% of that of the U.S., but they had a trade surplus with us of $32 billion.

- Germany has a population about 25% of that of the U.S., but they had a trade surplus with us of $65 billion.

Native-born residents of these nations are the source of the computer programmers and engineers and other technical workers these nations need to successfully compete economically. Their native-born residents are **also** the source of the workers who do roofing and construction, wash dishes in restaurants, work in retirement homes, work in agriculture, etc. This occurs because the price mechanism in these countries adjusts and allocates sufficient wages to these jobs so that workers will do them. Such market adjustment of wages often does not occur (or usually does not occur) in the United States because of the readily available supply of low-cost imported labor. This situation has also contributed to the phenomenon of "Men Without Work" in the United States (book by Nicholas Eberstadt, 2016; the aforementioned Jared Bernstein was a commentator to this book). "Men Without Work" are among the occupants of homeless camps.

What Has Occurred Between Earth Day 2017 and Earth Day 2018?

During the last year, concerns about the sustainability of our way of life and about the health of our Planet have been drowned out by the housing shortage issue. Almost daily, there have been articles and reports about what we need to do to build more housing for our growing population so we can keep our economy growing. One facet of this activity has been the YIMBY (Yes, In My Back Yard) movement which wants to squeeze more housing into urban areas. Another facet of this activity has been to try to build more housing in areas previously set aside for open space.

What has been **conspicuously absent** from all these calls for more housing for our growing population has been **questions raised** about what level of human activity,

including housing, our Planet can take and still sustain our population at a standard of living like what we are accustomed to.

We Must Check with Our Planet First.

In the interests of future generations, **we must check with our Planet first about what it can sustain** before we proceed with our plans to, for example, cram more people into urban areas. Even when they are stacked in high-rise residential buildings, Americans use a lot of resources – which we depend on our Planet to provide. It is noteworthy that because NIMBY (Not In My Back Yard) indirectly militates against population growth, it helps our Planet and future generations while YIMBY has the opposite effect.

(At a personal level, increasing urban population densities makes an already difficult street parking situation here in the Oakland flatlands really tough.)

40 Million and Growing, Housing, and Sustainable Existence on Our Planet

Sustainability refers to the population size our Planet can **sustain indefinitely at our lowest acceptable standard of living.** The sustainable U.S. population is approximately 150-200 million people. In 1970, our nation's size of 205 million was close to the sustainable range. It's population in 2018 is 327 million, about 60% beyond sustainability. In 1970, California's population was a bit less than 20 million. It's population in 2018 is 40 million. Assuming California parallels the nation, its population is now about 100% beyond sustainability. To foster sustainable existence on our Planet, the nation and California need to first stabilize their populations and then gradually reduce them.

Sustainability has a relatively long-term perspective – although the "long-term" we face may be just generations. This is how long we can get away with taking more from our

Planet then it can restore. Many people, however, are more focused on the here-and-now. Even if one is concerned mainly about living conditions now, not generations into the future, arguments can be made for stabilizing California's population, especially the Bay Area which is pretty much built-out. The signs are abundant:

- There are daily reports on the housing crisis, with demand far exceeding supply. The reports include stories about buyers writing personal letters to sellers, pleading their case why the seller should sell to them.

- Houses for sale are on the market for just a short time, often less than a week, before they are sold.

- Houses are selling at 60% above asking price.

- There are reports that $500,000 "starter" homes are becoming a rarity.

- Even well-paid Silicon Valley engineers are hard pressed to buy a home near where they work: a $216,181 household salary is required to buy a median-priced house in the San Jose metro area, while $171,330 is needed to buy a typical home in the San Francisco metro. That's assuming a 20 percent down payment on a 30-year fixed loan, says a Nov. 2017 study.

- People who made the considerable effort to relocate to Silicon Valley (and the greater Bay Area) are leaving the area. In 2015, 2,000 new residents per month came to Silicon Valley. In 2016, 42 per month are leaving. There are reports of shortages of rental trucks available for moves out of Silicon Valley, but not for

moves into it Colorado is often cited as the destination of those fleeing Silicon Valley and the Bay Area.

So, both those with a longer-term concern about sustainable existence on our Planet and those whose concern is living conditions in the here-and-now have an interest in stabilizing California's population at 40 million. Will this happen? Unfortunately, it does not look promising. Business says that native-born residents do not provide a wide range of workers California needs, from computer programmers to dishwashers and everything in between, to remain competitive. So, the state has to import these workers. And, of course, these workers and their families need somewhere to live which adds to the demand side of the housing situation.

As written earlier, however, the most important question business and all of us should ask is: What is the sustainable population of our state, not how large a population we need to provide the workers business says it needs. **We must check with our Planet first.**

Will Oakland Take the Lead Toward Sustainable Existence on Our Planet?

To restate: No politician at the national, state or local levels, **including Oakland**, wants to touch this **most basic issue: what population levels are sustainable at our lowest acceptable standard of living.**

Dear Mayor Schaaf: I ask you to please take the lead in at least thinking about these issues and discussing them and getting others to think about them and discuss them. Unless we take measures to achieve more sustainable population levels, future generations will face **a dystopian existence -- at best**.

Breaking the Taboo on Earth Day, April 2018

I trust that you and other thinking people of goodwill will finally break the taboo against discussing sustainable population levels at Oakland's 2018 Earth Day event. I remain hopeful we will not corroborate physicist Albert Einstein's assessment of human intelligence: " Only two things are infinite, the universe and human stupidity, and I'm not sure about the former."

Thank you,

William E. Jackman, Ph.D.
Statistician / SAS & SQL Programmer
Oakland, California
April 8, 2018

I am a second-generation Irish-American who grew up with immigrant Irish grandparents and aunts in Oakland. I am a graduate of Oakland High School and am fluent in Spanish.

Addendum on Trade and Sustainable Existence on Our Planet

Sustainable existence on our Planet entails minimizing our demands on it when possible. This includes international trade. There are large environmental costs, for example, when the U.S. transports scrap metal and paper to China, China uses them to manufacture and package toasters, microwave ovens, exercise machines, power tools, etc., and then transports them back to us. It would be better for our Planet if we manufactured the toasters here, obviating the round-trip transportation and its toll on our Planet.

Some international trade is appropriate even when the health of our Planet is taken into account. Examples:

- Guatemala, Ecuador, Costa Rica, Colombia, and Honduras have a natural advantage over the U.S. in growing bananas while U.S. has a natural advantage in growing wheat and corn. So, international trade makes sense environmentally.

- Natural resources availability varies between countries, e.g., tungsten (which makes cell phones vibrate). So, international trade makes sense environmentally.

- Some countries are too small to realize economies of scale necessary for certain industries, for example, auto manufacturing. So, international trade makes sense environmentally. (The U.S., in contrast, has large internal markets which can support a wide range of domestic manufacturers.)

Returning to the first paragraph of this section, China has no natural advantages over the United States in making toasters, microwave ovens, exercise machines, power tools, etc., which would justify the heavy environmental cost of the round-trip transportation. The technology for making these items is available to the U.S. and other countries; in fact, the U.S. may have invented it.

Some history:

- The American Industrial Revolution started in 1790.

- By 1890, the USA surpassed Britain for first place in manufacturing output.

- The industrialization of China (in modern times) began around 1960.

Source of Quotes

Eberstadt, Nicholas, “Men Without Work”, 2016.

Youngquist, Walter, "Framework of the Future", December 2016, www.npg.org/forum-papers2.html