

A BLUE PRINT FOR OHIO

INTRODUCTION

Humanity witnessed the fastest transformation in terms of power generation during the latter portion of the 19th Century when it progressed from wind power to steam power generated by coal then oil and capped at the end by the development of the internal combustion engine. Since then, not much has changed; only nuclear and present day designed solar power can count as new technology, but we're still extracting oil and gas from Western Pennsylvania, together with Ohio and West Virginia and using it mainly for power generation and transportation 160 years after its discovery. Complicating the energy conundrum further is the issue of subsidizing Ohio's two nuclear power plants costing us hundreds of millions of dollars and getting us virtually nothing in return. Even if you shut them down tomorrow, there just isn't enough available real estate for what would be required for solar and wind farms to make up the difference.

Predictably, lawmakers are either making short term decisions based on narrowly or quickly drawn conclusions provided to them by those paid to do so or they're deciding on the fate of millions without any thought to the future. That part of our fossil fuel history hasn't changed either, by the way, so it really is in the best interest of the public to become more engaged in Ohio's energy future and help change the way public policy is created going forward. We do this by making a plan as broad minded and inclusive as possible in its scope; far reaching in its aspirations yet peaceful in approach; and finally, as tangibly transformative as it can be in its outcome but mindful of its tread during the long trek toward fruition.

The following is a draft blueprint to help unravel the mystery and present a solution that entails Ohio using natural gas as the bridge fuel for at least the next 20 to 30 years while working nearer to generating energy from 100% renewable resources. The idea is to leverage Ohio's wealth in natural gas to fund growth in projects and programs covering the environment, education, energy, infrastructure, taxation and even immigration.

This plan entails the creation of a publicly owned state bank for infrastructure, formation of a sovereign wealth fund, generating additional state revenue through a revised tax structure on oil and gas investments, promotion of private-public partnerships for financing mass transit, construction of new water and wastewater plants and the eventual modernizing of Ohio's power grid distributing electricity produced by space-based solar power generating satellites.

It took 40 years to reach this present where Ohioans witnessed over that time the loss of so many economic and social benefits, and it's contributed to the peoples' loss in trust with institutions once counted on to provide good and honest stewardship of the public's resources. Everything set forth in this blueprint is designed to restore trust in each other and our institutions, beginning with the smallest institution of all, the family. Safety and stability in one's life is determined by their immediate surroundings, their everyday environment, which is family life, and it is apparent to many that most current economic and social ills are directly related to the continued disruption of that life. Therefore, restore family first and trust in each

other and by extension, trust in others will follow. The heart of this plan is centered on the idea of all Ohioans becoming an extended family, in the grandest sense one can imagine, that helps one another and works with each other toward a prosperous future benefitting all.

I. ENERGY

The surplus in natural gas, oil and other fuels has not only stabilized the energy markets but entire key industries that are so dependent on them, such as agriculture, manufacturing and freight transportation. This energy boom has not come without its faults, particularly the requirement for large volumes of water and there remains much to be done to address these concerns. Ohio is in a critical phase in this development and there is much more potential upside than downside in further extracting these resources and leveraging them so as to catapult the state onto the next level of power generation utilizing nothing but fully clean and renewable energy resources.

- Natural gas can also be derived from bio-mass processes, including extracting methane from landfills and is referred to as renewable natural gas (RNG). In fact, much more extraction could be done at this level while incorporating new carbon capture methods at these sites thereby further reducing methane emissions and being safer on the environment than drilling. Giant geodesic dome structures made with recycled materials could be erected over landfills capturing methane while eradicating fouled air and unsightliness from the nearby communities.
- Electricity providers are changing over their coal-fired plants to natural gas usage based on the potential reservoir of energy, low cost and greatly reduced carbon emissions. Large fleets, such as UPS, FedEx and a substantial number of large waste management companies are switching over to compressed natural gas (CNG) engines which burn far cleaner than diesel and require much less maintenance than diesel engines. These same companies are investing tens of millions to convert their trucks and build CNG fueling depots across the country. Reducing carbon emissions on a grand scale throughout the nation's trucking industry by transitioning it over to CNG and liquid natural gas (LNG) engines would greatly assist in that regard.
- Public transportation vehicles running on CNG reduces the toxic fumes passengers have to ingest whether they're taking the bus to work or school. There has been huge demand within the state for access to grant funding for alternative fuel development but legislation has languished in the General Assembly that could be making full opportunity of these resources.
- David-Besse and Perry, Ohio's two single nuclear reactor plants are nearing the end of their useful lives and are running at a loss because they can't compete with the cheaper natural gas-generated power. Nuclear proponents cite the lack of carbon emissions from the plants which helps the state achieve lower emissions and that Ohio doesn't possess enough surplus power to make up the difference if they are permanently shut. The two plants contribute nearly \$500 million annually to Ohio's GDP and employ more

than 4,000 people directly and indirectly.

- Recently passed legislation and signed by Governor DeWine removes the mandated renewable energy fee paid by ratepayers and replaces it with a flat monthly fee formulated to further subsidize the nuclear plants for an unspecified period. Alternative energy sources, such as solar and wind, would receive far less funding as a result under this legislation.
- The two plants will eventually be shut; it is just a question of when and how and what to do with the aftermath. A nuclear reactor core takes decades to cool so these plants will need to be maintained long after they're turned off. This is where we can accomplish two goals at once.
- Davis-Besse and Perry could be ideal sites for ground based solar power receptor plants receiving solar power via microwave transmission from geo-stationary orbiting solar power platforms. These platforms or giant arrays collect solar radiation, convert it and beam it earthward to the receptor plants. The magnitude of power is measured in gigawatts and easily replaces the power generated lost by moving away from nuclear fission. So the decommissioning of the nuclear plant is occurring while the construction of the new solar plant is underway.
- The solar collection and reception technology was first developed by Dr. Peter Glaser, a NASA scientist, in the early Seventies. Dr. Glaser posited that a constellation of orbiting platforms (12) would be more than sufficient to power the entire country but it wasn't considered viable at the time due to the enormous costs associated with launching rockets, lack of qualified personnel and the plain fact that oil was cheap and plentiful.
- Due to the rapid rise in the privatization of space, the cost of launching rockets, even heavy boosters, is coming down sharply. These same private launch companies are planning on putting a lot more people into space and not just as high paying tourists. Jeff Bezos, Elon Musk, Ricard Branson and others are building next generation rockets and spaceships explicitly designed to put humans into space, on the Moon and onward to Mars and wherever else. They're talking about building orbiting transfer platforms, geo-stationary communication satellites and space colonies, all of which will require more personnel and a lot of robots.
- Ohio already possesses a fine rocketry research center in NASA Glenn in Cleveland where next generation rocket engine research and capsule designs have existed for years. Northeast Ohio, as a result of Governor Taft's Third Frontier program, is a leading research area for hydrogen fuel cell research that uses natural gas. Hydrogen fuel cells are critical to future space and lunar craft. Liquid hydrogen is also the fuel of choice for heavy lift purposes and can be extracted from methane (CH₄). Ohio is emerging as a leader in robotics and is turning out more and more trained students

from trade schools and technical college programs. The robots required for space use could be built and programmed here as well.

- Ohio companies could design and build rockets for existing rocket companies or even start something of their own; supply the fuel and fuel cells for the vehicles; design and build the R2D2's to help construct platforms in space; and then launch parts, personnel and robots into space from right here utilizing a repurposed Wright-Patterson Air & Space Port in Dayton.

Think about it, all of that coming from natural gas. First things first though, and to get the above we must start with looking at how all of this is going to be paid for and by whom.

- In 2015, the General Assembly came close to passing tax legislation on the alternative fuels industry which included natural gas and propane. The proposed legislation would impose a tax on the industry but would not start as burdensome. As the demand increased so would the tax over a scheduled timeline. The tax revenue would flow into a separate fund, not the General Fund, and would remain there for expenditures related to the industry such as infrastructure improvements and remedial royalties to those communities directly affected. The plan here is to revive that legislation, with some minor tweaks, and get it passed so Ohio can start using a portion of those funds for the planned transition away from fossil fuels.
- Ohio could create a publicly owned bank for infrastructure purposes that would be a significant financial partner in a project of this size, alongside of course private investors. Ohio could provide seed money for the bank's start-up with funds from its Rainy Day fund, say \$500 million. A special mutual fund(s) could be created for the sole purpose of investing in those Ohio companies and industries involved with the construction of the entire project. Ohio's citizens, young or old, could be investors in their own right by acquiring equity in shares of participating companies or holding an interest in the mutual fund(s). In this respect, ordinary people who over time either lost or will lose their jobs and/or professions due to automation, outsourcing, recessions or eventually retirement could establish a new source of income for themselves and their families spanning generations.
- Norway has banked over \$2 trillion in the past 20 years off of their North Sea oil revenues by creating one of the world's largest sovereign wealth funds. This oil revenue is what funds their health and education sectors, as well as their infrastructure, and invests in technology and companies for the post-oil economy of the future. It is directly under public scrutiny and is transparent.

An Ohio Investment Authority modeled after Norway or even the various Emirati investment authorities of the Arabian Gulf states whose revenues raised entire city states from the sand bringing forth brand new port facilities, apartments and family housing, gleaming skyscrapers, freeways, airports and light rail systems. The public bank could operate under the auspices of the Investment Authority or on its own. Transparent, publicly held entities like this

accomplishing large projects aimed at protecting our future and providing opportunities for families for years to come would go some way toward restoring public trust in our institutions.

II. INFRASTRUCTURE/TRANSPORTATION

Ohio can lead the way with a comprehensive approach to infrastructure; one that not only entails the repair and maintenance of existing systems but the development of a far reaching effort that accomplishes a number of major tasks. Many Ohio towns are still in critical need of upgrading their decades-old wastewater and sewage treatment facilities, including separating out their combined storm and sewage lines. The EPA has regularly assisted municipalities with financing these kinds of large scale projects, however, under the current administration, it remains unclear how much future assistance will be available. Establishing an alternative for funding such projects at the state level may be a possibility.

- The state raised the state gas tax 10.5 cents per gallon and diesel by up 20 cents beginning in July 2019. The Transportation Department faced a \$1 billion shortfall for the upcoming budget that precipitated the rushed legislation on the tax hike. Projected revenues of \$735 million for the first year will be well shy of what is required with mass transit getting double what they received before but far less than what is needed. The bill signed by Governor DeWine not only increased the amount the state can collect as excise tax per gallon of gasoline and diesel but for the first time included alternative fuels, such as compressed natural gas and propane. Most experts, including the Governor, argued the tax needed to be higher.
- The state tax, similar to the Federal tax, hadn't been raised in years and stood at 28 cents per gallon. A one cent increase would bring in an estimated \$67 million per year. Revenues have not kept up with rising costs over time, and as a consequence, timelines for road improvements, for example, keep getting extended further and further out. Therefore, it would have more prudent if Ohio raised the tax by 18 cents per gallon to cover the present shortfall and boost revenues going forward.
- The new energy legislation referenced above has \$300 million over the next two years going from ratepayers to a private utility toward maintaining the two nuclear power plants with no alternatives. That amount is the equivalent of a 5 cent tax increase per gallon that would have erased the transportation budget shortfall and more importantly boosted spending tremendously in local towns all over the state, where mass transit is needed. Raising a few cents provides additional environmental protection funding as well as be a primary source of revenue for the creation and continual operation of an Ohio Investment Authority and the formation of a new publicly-owned Bank of Ohio financing future infrastructure improvements.
- Ohio could use a publicly-owned bank similar to the Bank of North Dakota, the only publicly-owned state bank in the country. The Bank of North Dakota began in 1919 as a result of a populist uprising among the farming community who were getting shortchanged by market forces outside of their state. The Bank of North Dakota

started as an agriculturally-focused bank but then over time became engaged in economic development in a major way for North Dakota.

- The newly chartered Bank of Ohio could partner with other financial institutions in providing bond financing for municipalities to upgrade their wastewater treatment facilities. There could be investment opportunities for industries designing the next generation of road surfaces incorporating features such as heated and lighted highways using carbon fiber materials to house data and power transmission lines. The Bank could invest in new mass transit schemes for the state and cities.
- Seed money for the bank could be withdrawn from the Rainy Day Fund; surplus monies coming mostly in cuts to the local government fund over the last eight years. This seed money would be a way of the state government giving back to the local communities in need of financial assistance with their infrastructure problems.
- China for example, is committing huge sums toward faster mass transit such as their magnetic levitation trains and other industrialized countries are continually embarking on plans to modernize their rail and road systems. Oil rich nations such as the various Arabian Gulf emirates, Indonesia and Malaysia leapfrogged by building state of the art airports, brand new rail and roadways and world class trade ports. Using their vast energy resources, they are plowing massive amounts of funding back into infrastructure projects
- Infrastructure encompasses many sectors as noted above but from one environmental aspect, nothing could be more important right now than getting our water supplies and distribution system up to some kind of 21st Century standard. Many of our systems, particularly water works in rural small Ohio, need upgraded and financial assistance boosted to ensure the citizens aren't gouged every month on their water bill. Transforming these facilities at an accelerated pace will help clean up our public waterways, specifically the Lake Erie and the Ohio River watersheds.

If there is clearly one area that constantly impacts all of us on a daily basis, it is infrastructure, and it is the one area that we have allowed to deteriorate every day for decades. Honesty and transparency is now called for and sacrifices asked of each of us going forward because it's critically important we stop wasting time and increase the public's awareness and oversight on the caretakers of our public works. If Ohio's citizens are being asked to pay more at the pump and see their monthly utility bills rise, then a much more concerted effort must be made to engage the public in a more active, participatory manner, such as a shareholder or stakeholder with interest.

III. MANUFACTURING

Closely allied with developing infrastructure, transportation and energy resources is of course manufacturing, and which most anyone who has been around the state for the last 40 years knows all too well, Ohio has lost a tremendous amount of its capability in manufacturing. We will need to get a large portion of that back and fortunately we have a framework already in place pointing the way.

- The 2015 Tri-State Shale Agreement calls for each of the partners to foster development in the energy products derived from oil and gas extraction. This includes construction of petro-chemical facilities to refine these products. Pennsylvania became the first partner to begin the construction of a new “cracker” facility in Beaverton in 2016. This ongoing construction resulted in 6,000 construction jobs and over 600 permanent ones. Major petro-chemical companies around the world are very interested in building more facilities, and the talk now is that Illinois, Indiana and Kentucky desire to join the Shale Agreement as these states have substantial reserves of their own under their borders.
- Chemical manufacturers would prefer to build state of the art facilities closer to the source rather transport these same materials by rail, truck or pipeline thousands of miles away to the Gulf. Most of the country’s petrochemical manufacturing takes place in one area and that is the area around Houston, Texas; and from what we just witnessed recently with respect to the vulnerability of those facilities to extreme weather it would behoove major chemical operators to reassess having all their eggs in one location.
- Ohio manufacturers would benefit enormously if Ohio implemented a long term transportation policy with an eye toward creating a state-wide or even regional-wide mass transit grid utilizing a mixture of high speed rail with slower light rail routes connecting smaller communities with larger cities. Components such as rails, rail cars, station platforms and power generation could be constructed right here in Ohio. New manufacturing facilities could come on line for this purpose, as well as converting older facilities.

Ohio possesses a fair number of idle and/or closed factories and warehouses that are scattered to its four corners and litter the small towns where they’re located. In a number of these cases, it wouldn’t require much to retrofit their use and achieve some semblance of employable activity. Given what has been presented so far, there will be more than sufficient demand for additional manufacturing capability and Ohio towns have ample space available. Sparking economic activity in rural areas is critical to this program as it helps those families in search of higher living wages and can revitalize local communities whose heart has been on life support for years.

IV. ENVIRONMENT

At present in Ohio, there are two major environmental concerns that need addressing, and they are the Great Lakes Restoration program and the absolute critical safeguarding of our water resources around those areas employing hydraulic fracturing processes. The latter is an extremely contentious environmental issue, but if handled correctly, all sides to this matter may benefit.

- Natural gas plays a vital role in Ohio's economy for years to come and one where just a few years ago Youngstown unions teamed up with oil and gas executives to lobby for a fair and equitable tax plan for the industry to help guarantee that viability. Yet it is a given that nearly everyone agrees the environment has to be protected in the process.
- Today's state of technology in water reclamation has made the use of underground storage of contaminated flowback water nearly obsolete. Portable onsite facilities (using reverse osmosis filtration) can reprocess up to 80% flowback water for use again with the remaining 20% in contaminated water processed at the municipal wastewater treatment facility. This greatly reduces usage of local resources such as aquifers, lakes and rivers. The portability of these treatment plants also decreases the carbon footprint left behind by the fleets of trucks used to transport water and wastewater.
- Underground storage needs to be banned. By implementing a sensible tax on the industry, a portion of that revenue goes specifically toward strongly adhered-to environmental protection programs and the state's role is strengthened for enforcement and monitoring purposes. Old storage sites can be dismantled and thoroughly cleaned up.
- Reduce extraction by hydraulic fracturing for oil and natural gas over time as more investment is made in the newer technology of RNG extraction as demand for RNG increases.
- Ohio also requires a long-term, stable commitment from its political leadership that continued work is going to be done on their part to protect the Great Lakes. According to recent reports, the federal government has substantially cut funding to this vital program in the latest budget proposal. The region needs to develop its own source of funding to maintain the agencies working to keep the Great Lakes region environmentally sound for all forms of life.
- The EPA has been advising for decades that a major factor in the pollution of our water resources occurs directly from outdated water treatment plants and sewers. Continued use of combined sewers is a huge problem. This is another good reason for Ohio to create funding mechanisms of its own to help pay for these kinds of projects.

- Ohio could build on its earlier success in brownfield demolition. Through either a mixture of funds available through state departments like the Ohio Division of Natural Resources or Ohio EPA grant funding, a vast number of projects were initiated that benefitted local communities. Anyone driving through small town Ohio of late will readily notice there is a great need for demolition or reclamation but communities are hard-pressed to do anything for lack of funding. A state fund could be seeded with public funds to assist in this regard.
- Closed shopping mall pads could be converted to greenhouse operations parceled out to local farmers and communities as a cooperative. If the shopping mall itself is still intact for occupancy and available, then a year round farmer's market could exist. Local schools, hospitals, commercial enterprises would benefit from the increased supply of fresh produce. This is no minor point. Food security was highlighted just a scant few years ago when the drought in central California was reaching its peak. It was reported that 80% of the entire nation's produce comes from this just one area of the country. And things were drying up. Regardless of how anyone comes down on the anthropogenic-caused climate change argument, it still doesn't change the fact that we, as a nation, have all our eggs in one basket. The rest of the country could do more to grow a greater variety of food locally.

V. EDUCATION

Ohio will never progress in public education until it has fixed, once and for all, its financial underpinnings. The Ohio Supreme Court has ruled the property tax-based funding mechanisms unconstitutional and has asked the General Assembly to address this matter. No action for years has been made. Fixing the financing and putting all districts on a sounder, fairer financial basis is going to greatly alleviate other related problems down the road. One example that has shown to be more stable and reliable for a school district's planning is a permanent local income tax levy that some districts employ rather than relying on periodic renewals of property taxes or even increases, if fortunate enough to get passed. State-wide adoption of an alternative tax levy, probably income based, could be the right way forward.

- The educational component for implementing the various projects contemplated here is enormous and there isn't a moment to waste. Trade schools, for instance, need to have expanded curriculums right away that include mechanical training on CNG and LNG engines, compressors and pumps. A common complaint amongst national fleet trucking companies about transitioning to CNG engines from diesel was the lack of trained mechanics along their routes. Perhaps there could be partnerships formed with national truck stop repair facilities for specific job training programs affiliated with Ohio trade schools for working with natural gas engine and storage components at high and low pressures. In many cases, these partnerships and/or sponsorships already exist with auto and truck companies but the emphasis is now on transitioning to CNG and LNG burning engines and being able to answer that demand.

- With the sudden rise in electric vehicles, including trucks, (EV) there is already demand for constructing readily accessible EV ports. Students could also benefit in learning how to install gas and diesel to natural gas conversions for cars and trucks or installing electric drive motors and transmissions. During the next five to ten years, whole new grids for information, transportation and energy are going to need to be installed and maintained. That means thousands of jobs for carpenters, computer installers and programmers, drivers, electricians, mechanics, pipefitters and welders to name just a handful. As pointed out earlier, robotics already plays a large role in Ohio education, beginning in the middle and high school levels. The imperative now is to hone those skills further right here in Ohio by providing more grants for post-secondary education at Ohio colleges and technical schools.
- Ohio could start a new program for high school students and graduates who desire to work on Ohio's economic transformation in exchange for wages and/or university credit. This could be a way of making college more affordable. Ohio possesses an abundance of institutions for higher learning, probably more than most states. Private and Public College and Universities, Research Centers and Laboratories are sprinkled generously throughout the state and attract students from all over the country and the world. Yet how many Ohioans can afford to attend the local college in their hometown?
- One of the purposes behind such a long term project such as this is to provide those kinds of opportunities for people to attend the school of their choice, which may be just down the street from where they live. Given the fact that more and more people are engaged in online studies for post-secondary studies from out of state institutions, some of Ohio's invaluable brick and mortar institutions are at risk of falling attendance. A long term work study program allied with Ohio colleges may be able to fill those seats up in the classrooms.

VI. TAXATION

As predicted, Governor Kasich's tax cuts early in his term and other revisions to local funding led to a large number of local jurisdictions attempting to raise levies and local taxes to fill the revenue gap. Sadly, in many cases these measures failed at the ballot box so local services were cut back, jobs were lost and local economic activity slowed. Opportunities got harder to come by as local communities competed against each other for the periodic grants offered to localities from state agencies or they were forced to offer businesses additional tax breaks, such as personal property or inventory that unnecessarily further reduced income. Sure, the promise of jobs and income tax revenue may have offset some of that potential loss from other sources but in many cases it takes years to reach the employment level where the community recovers back its initial investment. In other words, we're not seeing a repeat of Honda in Marysville. Regardless whether it was through ill-advised tax cuts, failed levies or just plain kicking the can down the road as in not raising fuel taxes in years, Ohio's officialdom have let down the taxpayers in their respective roles as stewards of its public works.

- People, in general, do acknowledge the need for taxes to help with local services such as sanitation, road maintenance and safety services so taxation need not be negatively viewed as it has been for years. The public needs to see its tax dollars in action. What is required now for massive public dissemination is a clear, transparent breakdown of the state budget process, highlighting its primary funding.
- Ohio's just passed two year budget is just over \$149 billion wherein the General Revenue Fund makes up 41% of the state budget. Minus some federal funding, actual state dollars make up 34% of the total or approximately \$50 billion over two years (source: TaxPolicyMatters.org).
- Ohio's total tax revenue in 2018 was \$22 billion of which state sales tax accounted for approximately 44% followed by state income tax of approximately 36.6%. The rest is made up selective state taxes, license fees, business and utility taxes. Beginning in 2006, the sales tax began overtaking the income tax as the primary source of funding in the General Revenue Fund. A sales tax is regarded as a much more regressive form of tax that disproportionately affects the lower to middle classes who have lower disposable income and it hinders economic growth as Ohioans tend to venture out of state for large scale purchases that help slows sales made in Ohio. A 10% decrease in the state sales tax rate would mean an approximate \$1 billion decrease in revenue from that one source but it would also represent that much more back in Ohioans pockets every year. The shortfall could easily be made up from increased income tax collection by clamping down on tax expenditures. The state loses out in revenue to the tune of \$9 billion a year due to tax breaks (source: TaxPolicyMatters.org).
- The recent passage of the increase in excise fuel taxes will bring in \$735 million for FY2021 and \$845 million for FY2022. A modest but significant increase over time in excise fuel taxes, possibly tied to inflation, will bring in additional revenue allowing for more concerted effort in rebuilding and for future growth in the transportation infrastructure that could even lead to future investments and newer, more diversified sources of income. This in turn could lead to a cut in taxes, beginning with the sales tax. Excise fuel taxes were increased to stabilize funding for road maintenance and repair at a minimum with the recent legislation, but ideally they could be raised to accomplish other tasks, such as seed money for mass transit systems. If Ohioans witnessed a strong revitalization toward just getting better roads to drive on, bridges to cross and feeling good about the option to hop on a train to work rather than get stuck in traffic, then taxes wouldn't be perceived as such as burden after all.
- The General Assembly needs to also revisit implementing a rational and mutually agreed-upon tax plan for the oil and gas industry. The legislature responded to the coalition of capital, labor and management and worked on an acceptable alternative model similar to Pennsylvania's tax structure on the same industry. This effort began in earnest in the early months of 2015 but soon fizzled out in the fall. This is a vital piece to the overall plan in transforming Ohio's economy. Careful, smart taxation-planning

can provide long-term benefits for these specific businesses and related government sectors alike, promoting growth for all concerned.

- The General Assembly must also address the need for the state public educational system covering primary and secondary schools to generate revenue primarily based on some other form of taxation rather than relying on property taxes. A number of school districts in Ohio do apply a 1-2% local income tax to fund their budgets rather than using property taxes. This is a critical time for this particular issue as Ohioans, like everyone else, are aging and school populations are decreasing too. Most experts agree that reforming the school funding issue will greatly assist with rebuilding inner city schools incorporated in our larger cities and level the playing field with more affluent school districts in the suburbs.

VII. LABOR AND IMMIGRATION

As highlighted earlier, skilled labor needs to be dramatically boosted in Ohio if it's going to develop and replenish the manpower resources necessary for so many projects. State government, commercial interests and labor need to cooperate fully in developing mutually beneficial goals and plans. Industry is changing dramatically and changes have to be closely monitored so as to avoid critical junctures in the workforce. For example, the robotics industry is exploding as never before due to the incredible increases in computing power, speed of applications and adaptation of new durable materials such as carbon fiber composites that ensure longevity. In short, there are going to be larger and larger reductions in the labor force as more robots come on line for a variety of purposes and encompassing all types of light, medium and heavy industries. Therefore, it may be in the interests of state leaders to begin seeking those other avenues where we can still keep human hands from becoming idle and help prevent the state from incurring higher social services costs.

- There is no separate department of labor as such in Ohio as it is incorporated within the Commerce Department; therefore a restructuring may be called for where an actual cabinet level position for a Secretary of Labor is created. Ohio's Labor Secretary would assume many of the responsibilities currently residing with the Director of the Commerce Department and be specifically charged with overseeing the labor force required for building the projects contemplated here.
- Ohio has many idle factories where only one or two shifts are operating. Lordstown's closing near Youngstown is just the most recent example of losing another major production facility related to the auto industry. Diversification in manufacturing is vital to moving forward in gainfully employing many of these workers currently not participating in the state economy. Therefore, it is in Ohio's best interests to engage in economic stimulus planning very soon as that is usually regarded as taking the very basic, necessary steps against recession. And who better qualified than a Labor Secretary primarily responsible for providing the labor quotient to the stimulus planning and helping oversee its implementation, rather than having this function be one of many that the current Director of Commerce has to perform. Greater

transparency will result in separating out these tasks and possibly even enhance communication and relations between labor and management.

- One criticism possibly heard from employers is that there may be problems finding enough good workers to fill all these projected jobs. If the following are implemented then the Labor Secretary will have an abundance of potential candidates at his/her disposal.
- Work-study programs could be initiated with high school and trade school graduates seeking post-secondary education. Whether it's working in a robot factory making robots or outside digging ditches, laying cable or paving roads, there will be a whole segment of dedicated youth employed in the program. Recently, the state has been actively engaged in finding employment for the disabled among businesses in the local communities where they work alongside others in factories, warehouses, restaurants and offices rather than keeping them in isolated work programs.
- There may be ample opportunities across the state to parcel out work product associated with the economic transition to those businesses employing the disabled. Post-secondary education for the disabled such as life skills training could also be linked with the jobs affiliated with this program.
- Another labor pool that could be tapped is from the prison population. It is highly likely that Ohio will soon join the ranks of other states that legalized marijuana for recreational use and shortly thereafter amend its various penal regulations, particularly with respect to sentencing. This will release a large number of low level felons from prison who were put in there primarily related to marijuana convictions. They will need to seek gainful employment that pays a decent, living wage enabling them to break the cycle of recidivism and restore self-esteem and confidence. And to entice future employers toward hiring such individuals, exemptions could be made to those businesses and industries pertaining to liability insurance so as to keep their rates low.
- Another pool to tap is from immigrants. Ohio could implement a guest worker program that grants temporary visa and work status to an immigrant, similar to a Green Card. The guest worker pays taxes, acquires an Ohio driver license either through testing and/or reciprocity and is insured. Some of this is already happening but in a piecemeal fashion with individual companies hiring immigration attorneys to recruit large numbers from elsewhere for temporary employment. Just recently, workers from Belize had Green Card status to work on an ethanol plant expansion outside of Marion. These workers had no intention of remaining in the U.S. but every desire to save every dime they could and remit home thousands that will provide them and their family a more secure future back home.

- The reality is that people over time will gravitate to greater zones of economic activity for a variety of reasons but largely to do with survival. People, throughout human history have traversed thousands of miles over land and water, many times in peril, in search of something different and hopefully much better than what they left behind. And in many cases, these people have succeeded and established themselves in their community. They are living proof that labor can cross borders the same as capital on a daily basis though the trick is to get the labor made legal like capital.
- Most countries require an employer to provide proof of sponsorship for non-national employees seeking work in the company's home country. In the Middle East, the Gulf States worked closely with large mercantile interests that imported thousands of Asians over the decades to help build their gleaming castles out of the sand. Registration is made swiftly and the new resident worker is gainfully employed and paying into the system and typically remitting funds back home in due course.
- Ohio needs to create its own robust state-directed residency program for current illegal aliens residing in Ohio aimed at expediting the registration of all illegal aliens, establishing legal residency in Ohio, and integrating them into the federal, state and local tax tables in a timely manner.

We have a large, potential workforce waiting to be tapped that will pay into the system rather than the system wasting its resources keeping them down and preventing them from working. This is how you make labor move like capital. Creating opportunities for industries and businesses to benefit from a large labor pool would greatly assist in boosting Ohio's productivity across the board. Ohio has to lead with new approaches and ideas that recognize that in order for Ohio to maintain, replenish and transform its agricultural, commercial and industrial labor ranks, it must derive them from a variety of sources. If Ohio is to embark on just half of what is proposed here it will need to substantially build its labor force for the next ten to twenty years.

CONCLUSION

The above represents only a portion, albeit a large one, of what Ohio could be accomplishing in the years to come. Anyone who has been paying attention to local and even national events these last couple of years will generally agree that people are finally tired of the status quo, as in legislatures only interested in passing legislation regarding individual rights issues like choice, guns and voting rather than dealing with larger societal issues like the ones previously discussed. Ohio lawmakers need to concentrate on new ideas that incorporate both short term and long-term planning and goals, and not something old that is rehashed or imagined with such grandiosity as to be impractical. There is nothing presented here that hasn't already been done repeatedly by other states and countries years before us and with general success.

What we lack is political resolve within our leadership and the trust bestowed upon them by the people to execute such leadership. The two parties have let down voters so many times over the years that any time a candidate or incumbent mentions something remotely novel; it is

met immediately with cynical derision. This is our present-day situation; a society filled with fear, ignorance, suspicion and uncertainty with everyone either out for themselves or securely encamped within their own little war party resulting in no movement forward on our most pressing issues.

Speaking of pressing issues, the opioid crisis that we are in the midst of right now and have committed huge amounts of resources towards came about for a variety of reasons, and one of the main reasons was the breaking down of the family over the years as stated in the introduction. Families went through tough times; experiencing traumatic events such as, job loss, bankruptcy, death, divorce or personal injury, and possibly suffering depression as a result. Hope was gone but the little prescribed pill made it all okay. Addiction set in thereafter and it spread like a pandemic as it morphed from one highly addictive substance to the next. Today, the crisis has crossed generational lines as grandparents are forced to take care of the grandchildren whose parents are in recovery or jail due to opioids. If the grandparents become incapable of parenting these children due to either illness or death before the parents can do so, then what happens to the children? This is how cycles of poverty, prison time and even self-inflicted punishment begin. As stated, it took a while to get to this point and it will take some time to at last rise above it, therefore, Ohio could rebuild itself economically over the long term in such a way that the rising tide will float all boats, meaning its citizens, and help address this crisis.

Creating this economic blueprint and enacting its proposals will tie together education, the environment, employment, infrastructure building, manufacturing, and most importantly of all, energy development. This blueprint will reach all parts of the state and will help families not just survive but thrive; local communities and economies to stabilize and grow; and firmly establish the future viability of our school systems. Therefore, it is imperative right now to break from the status quo thinking and present a bold strategy that incorporates present-day practical solutions with an eye toward building something sustainable for generations to come.

Craig Swartz
Upper Sandusky, Ohio
May 25, 2019
(Rev. 7/19)

This paper is a revised version first written in February 2018 and passed on to several candidates for statewide office including the campaigns of Zack Space, Joe Schiavoni and Rich Cordray. The Central Committee of the Wyandot County Democratic Party endorsed it in September 2018.