



## **Jobenomics Workforce Reentry Center – Phoenix**

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### **Executive Summary**

The ultimate goal of a Jobenomics Workforce Reentry Center (JWRC) is to create micro-businesses and jobs for formerly incarcerated, gang members and at-risk youth in order to reduce crime, deter social unrest and provide meaningful career opportunities to this cadre of U.S. citizens who are often shunned, excluded or isolated from mainstream society and career opportunities.

JWRC candidates will undergo rigorous background checks and due diligence processes before they are accepted into the program, which is designed to provide skills-based training and certification programs for high-potential aspirants. Each qualified program participant will start their own incorporated self-employment company to make them more competitive to get a job or start their own micro-business. An outside Oversight and Supervisory Board will monitor JWRC activities, evaluate JWRC results, and help build public trust and confidence.

The initial JWRC focus will be on mass-producing network marketing, renewable energy and materials reclamation jobs and startup businesses. A JWRC-owned and operated electronic waste (e-waste) materials reclamation facility will provide 45 direct jobs and 3-times to 5-times as many indirect/induced jobs. The e-waste operation is expected to generate between \$1 million to \$12 million per year in profit that will make the JWRC self-sustaining. The projected net income for JWRC operations shows a net loss for the first 2½ years and sufficient profitability thereafter to retire all debt, create additional career programs, fund expanded materials reclamation operations, and finance micro-business and light manufacturing startups.

The JWRC implementation team consists of recognized world-class experts, trainers, entrepreneurs and community-leaders, some of whom were formerly incarcerated, gang members or at-risk youth. The implementation team is providing pro bono services and financial support to get the JWRC-Phoenix project launched. Additional private and public sector support is needed in terms of grants, debt and/or equity financing. With accredited investor support, the JWRC has access to financing to cover up to 70% of the equipment costs for the e-waste facility. In addition, the JWRC has preliminary commitments from various financial institutions to develop a multimillion dollar micro-business fund for highly-scalable and high-potential business startup opportunities.

The JWRC plans to commence initial operations in 2017. Initial operations will conduct on-boarding, leadership training, skills-based training and certification, and self-employed businesses incorporation. In 2018, the JWRC plans to start e-waste operations and development of independent support contractor small businesses.

This Program Plan is a “living document” subject to modification by Phoenix community-leaders, decision-makers and investors. Community support is essential to implementation of this plan.



## JWRC-Phoenix Overview

**Background Material.** Jobenomics deals with the economics of business and job creation. The Jobenomics National Grassroots Movement's goal is to facilitate an environment that will create 20 million net new middle-class U.S. jobs. The Movement has a following of an estimated 15 million people. The Jobenomics.com website contains over 1,500 pages of material on business and job creation, and receives over 650,000 hits per month from citizens interested in economic, small business and job creation solutions.

Jobenomics National Initiatives include the Energy Technology, Network Technology, Urban Mining and Rural America (in development) that can produce millions of U.S. startup businesses and tens of millions of American jobs.

Jobenomics Proof-of-Concept State and City Initiatives now include three states (NC, DE and MD) and three cities (NYC, Baltimore and Harlem). Jobenomics Phoenix is potentially the fourth city initiative focused on a most difficult labor force challenge—creating viable employment opportunities for the formerly incarcerated, gang members and at-risk youth.

The Jobenomics Phoenix Team is jointly led by Mr. Vollmer, founder of the Jobenomics National Grassroots Movement, and Mr. Davis, a former incarcerated at-risk youth and gang member, who is now dedicated to reducing recidivism via the formation of a Jobenomics Workforce Reentry Center in Phoenix. The ultimate goal of the JWRC-Phoenix is to create micro-businesses and meaningful career opportunities for individuals most socioeconomically shunned by society.

**The Economics of Incarceration.** America has more incarcerated people than any other nation in the world. Approximately 2.3 million individuals are incarcerated including 1,310,000 in state prisons, 646,000 in local jails, 211,000 in federal prisons and 34,000 in youth detention facilities.<sup>1</sup> The U.S. incarcerated population largely consists of the most socioeconomically disadvantaged element of American society—mostly young adult men, disproportionately minority and poorly educated. The cost of incarceration runs from \$25,000 to \$50,000 per year per inmate depending on location.

In FY2010, the average annual cost for Arizona State-run prisons (not including jails or policing) exceeds \$1 billion per year, or approximately \$25,000 per inmate (not including capital costs, judgments and legal claims or healthcare).<sup>2</sup> While total incarceration, gang mitigation and at-risk youth prevention costs are difficult to obtain, it is not unreasonable to estimate the total cost to Arizona taxpayers at \$3 billion per year. According to the Arizona Daily Star, the Department of Corrections' budget alone has increased 40% in the last seven years and makes up 11% of the state's general fund (\$1 billion in 2015).<sup>3</sup>

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<sup>1</sup> Prison Policy Initiative, Mass Incarceration: The Whole Pie 2016, <http://www.prisonpolicy.org/reports/pie2016.html>

<sup>2</sup> VERA, Institute for Justice, Center on Sentencing and Corrections, January 2012, The Price of Prisons in Arizona, What Incarceration Cost Taxpayers, <http://archive.vera.org/files/price-of-prisons-arizona-fact-sheet.pdf>

<sup>3</sup> Arizona Daily Star, Arizona Corrections budget up 40% in 7 years, On prisons, Arizona stays tough, 27 June 2015, [http://tucson.com/news/local/on-prisons-arizona-stays-tough/article\\_04fd2d3e-08ed-50aa-b82c-8cdb749df27a.html](http://tucson.com/news/local/on-prisons-arizona-stays-tough/article_04fd2d3e-08ed-50aa-b82c-8cdb749df27a.html)

Per capita, the Arizona State Prison population ranks 6<sup>th</sup> highest of 50 states (up from 10<sup>th</sup> in 2000) and is 22% higher than the national average.<sup>4</sup> According to the Arizona Department of Corrections, as of October 2016, 42,567 inmates were interned in 10 State and 8 In-State Private Prison facilities. Of the 42,567 inmates, 37,837 (88.9%) are U.S. citizens and 4,730 are (11.1%) criminal aliens.<sup>5</sup>

### Arizona Inmate Population (U.S. Citizens Only)

As of October 2016	Inmates	% of Total
Assault	5,077	13%
Drug Sales/Trafficking	3,995	11%
Robbery	3,378	9%
Burglary/Criminal Trespass	3,078	8%
Drug Possession	3,020	8%
Murder	2,675	7%
Sex Offense	2,434	6%
Weapons Offense	1,830	5%
Auto Theft	1,734	5%
DUI	1,502	4%
<b>Top 10 Commitment Offenses</b>	<b>28,723</b>	<b>76%</b>
All Others	9,114	24%
<b>Total U.S. Citizen Inmates</b>	<b>37,837</b>	<b>100%</b>

*Note: A bracket groups the top 5 offenses (Assault through Drug Possession) with a total of 49%.*



Of the 37,837 U.S. citizen inmates, about half were included in five categories (assault, drug sales/trafficking, robbery, burglary/criminal trespass and drug possession), about one-quarter were included in the next five top offenses (murder, sex offense, weapons offense, auto theft and DUI). 62.5% of the committed inmate population, by county of conviction, is in Maricopa County, the county seat of Phoenix.<sup>6</sup>

In addition to the 18 State-run prisons, Arizona interns approximately 15,000 inmates in 16 County and City jails, 3,600 in Federal Prisons, and 2,000 in various youth, civil commitment and Indian facilities. While minorities make up 42% of Arizona’s prison and jail population, they represent 65% of the incarcerated with African-Americans being most disproportionately represented, followed by Native Americans and finally Hispanics.

According to the FBI’s National Gang Intelligence Center, gang activity is a growing and ever evolving problem in the United States, especially in cities like Phoenix.<sup>7</sup> The FBI classifies gangs in major categories including street, prison, outlaw motorcycle and cross-border gangs. Cross-border gangs

<sup>4</sup> Compare50.org, U.S. FBI data, Number and rank of State prisoners per100,000 residents, 2014, [http://www.compare50.org/chart/category/96/sub\\_category/328/display/329/chart/331/type/2/states/55](http://www.compare50.org/chart/category/96/sub_category/328/display/329/chart/331/type/2/states/55)

<sup>5</sup> In-State Private Prisons facilities interned 19% of all prisoners incarcerated at the State-level.

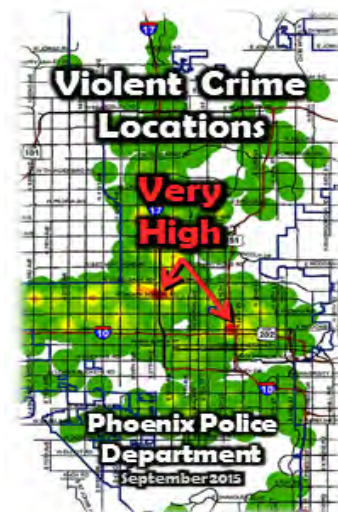
<sup>6</sup> Arizona Department of Corrections, Corrections at a Glance, October 2016, <https://corrections.az.gov/sites/default/files/REPORTS/CAG/cagoct16.pdf> and [https://corrections.az.gov/sites/default/files/REPORTS/Monthly\\_CP/bed\\_capacity\\_2016/bed-capacity\\_oct16.pdf](https://corrections.az.gov/sites/default/files/REPORTS/Monthly_CP/bed_capacity_2016/bed-capacity_oct16.pdf)

<sup>7</sup> FBI, The 2015 National Gang Report, <https://www.fbi.gov/file.../stats-services-publications-national-gang-report-2015.pdf> and FBI’s 2011 National Gang Threat Assessment – Emerging Trends, <https://www.fbi.gov/stats-services/publications/2011-national-gang-threat-assessment>

are a serious threat to the southwestern states with Phoenix Arizona being a major hub for distribution and sales of narcotics, human trafficking, kidnapping and lethal violence. Cross-border gang alliances with street, prison, and motorcycle-related gangs amplify the threat to public safety and stability of Arizona and the entire Southwest Region of the United States.

Of particular concern of adult gang membership is its effect on at-risk youth and the development of juvenile gangs. According to the FBI, adult gangs have traditionally targeted youths because of their vulnerability and susceptibility to recruitment tactics, their likelihood of avoiding harsh criminal sentencing and willingness to engage in violence. Juvenile gang membership is often attributed to incarceration rates of older members and the aggressive recruitment of juveniles in schools.

According to the FBI's Uniform Crime Report (UCR), Arizona is the 15<sup>th</sup> most violent state in America with Tucson being the most violent city in Arizona followed closely behind by Phoenix with violent crime rates of 724.5 and 636.7 violent crimes per 100,000 residents.<sup>8</sup> The latest FBI UCR reflects 2012 data, which is likely to be very conservative data considering the recent influx of criminal illegal immigrants and the rise of cross-border gang activity. City of Phoenix Police Department' UCR data shows that Central Phoenix is an area of "very high" violent crime (shown) as well as "very high" property crime.<sup>9</sup> According to Neighborhood Scout, a real estate business intelligence organization, the crime rate per square mile in downtown Phoenix is almost 4-times higher than the national average.<sup>10</sup>



The Bureau of Justice Statistics (BJS) ranks Arizona's "correctional population" as the 12<sup>th</sup> largest of the 50 states. A correctional population includes the number of inmates, age 18 or older, incarcerated in state prisons or local jails, plus the number of parolees under supervision. In 2014 (latest data), the BJS recorded a total of 133,600 people in Arizona's correctional population including 80,700 parolees under supervision and 54,800 incarcerated in prison or jail.<sup>11</sup>

The correctional population represents only the tip of the ex-offender and would-be-offender iceberg inasmuch as it does not include (1) gang members and at-risk youth who are likely future offenders, and (2) ex-offenders who are no longer under supervision who are likely to backslide into incarceration (recidivists) due to the lack of meaningful workfare opportunities, mental health and substance abuse problems, or simply the inability or desire to integrate with the mainstream community. Nationwide, the BJS calculates that 67.8% of state prisoners released are arrested within

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<sup>8</sup> FBI's Uniform Crime Report, retrieved 2 December 2016, <https://www.ucrdatatool.gov/Search/Crime/Local/LocalCrimeLarge.cfm>

<sup>9</sup> City of Phoenix Police Department Uniform Crime Reporting (UCR) Violent Crimes, September 2015, retrieved November 2016, <https://www.phoenix.gov/policesite/Documents/UCR%20Monthly%20Violent.pdf>

<sup>10</sup> Neighborhood Scout, Crime Rates for Phoenix, Arizona, <https://www.neighborhoodscout.com/az/phoenix/crime/>

<sup>11</sup> Bureau of Justice Statistics, Correctional Populations in the United States, 2014, <http://www.bjs.gov/index.cfm?ty=pbdetail&iid=5519>

3 years of release and 76.6% within 5 years of release.<sup>12</sup> A 2014 Arizona Prosecuting Attorneys' Advisory Council report shows lower rates of recidivism in Arizona but similarly disturbing trends.<sup>13</sup>

The Father of American Education, Horace Mann, is most noted for his quote about "Education then, beyond all other devices of human origin, is the great equalizer of the conditions of men, the balance-wheel of the social machinery." However, few Americans know the other half of Horace Mann's philosophy, "jails and prisons are the complement of schools; so many less as you have of the latter, so many more must you have of the former." Horace Mann, born in the 18<sup>th</sup> Century, could not have envisioned that in the 21<sup>st</sup> Century his jails and prisons quote would be as prophetic as it is today.

While Jobenomics agrees with Mann's educational philosophy, yesteryear's degree-oriented workforce development may not be workable for the bulk of today's labor pool. Yesteryear's degree-oriented education paradigm, does not guarantee work in today's high-tech, slow-growth economy where middle-class jobs are increasingly outsourced overseas or automated. Many citizens need short-term skills training and certification programs as opposed to degrees proffered by secondary and postsecondary institutions that take years to obtain. If 44% of postsecondary school students drop out of college and 40% of college graduates have difficulty finding jobs, how can lower educated people hope to find legitimate work with living wages? The answer is that many don't.

Employment opportunities for the formerly incarcerated, gang members and at-risk youth make challenges to meaningful employment and communal reentry almost insurmountable unless mentored and chaperoned by extraordinary, self-effacing ex-offenders who have honorably reunited with mainstream society.

**The Jobenomics Alternative.** While Jobenomics supports big business and government job creation efforts, its principal focus is on highly-scalable small and self-employed businesses that employ 80% of all Americans and produced 80% of all new jobs. More specifically, Jobenomics focuses on demographics with the greatest need and highest potential. Consequently, Jobenomics is working with dozens of communities and national organizations to implement Jobenomics Community-Based Business Generators<sup>14</sup> to mass-produce highly-scalable startup businesses for minorities, women, new workforce entrants (Gen Y/Z), veterans and other socioeconomically challenged citizens.

The Jobenomics Workforce Reentry Center-Phoenix (JWRC-Phoenix) initiative uses the Jobenomics Community-Based Business Generator approach to mass-produce highly-scalable occupations and small businesses for the formerly incarcerated, gang members and at-risk youth. The JWRC is the first Jobenomics initiative focused on the ex-offender and would-be-offender denizens—the most socioeconomically disenfranchised, challenged and proliferating cadre of people in America. The Jobenomics believes that the JWRC-Phoenix is a bellwether effort that, even if moderately successful, can be a model program to reduce recidivism, mitigate voluntary departures from the U.S. labor force

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<sup>12</sup> Bureau of Justice Statistics, Recidivism of Prisoners Released in 30 States in 2005: Patterns from 2005 to 2010, April 2014, <http://www.bjs.gov/content/pub/pdf/rprts05p0510.pdf>

<sup>13</sup> Arizona Prosecuting Attorneys' Advisory Council, Prisoners in Arizona, June 2014, <http://azsentencing.org/docs/APAAC-Fischer-Prisoners-in-AZ-Report-III.pdf>

<sup>14</sup> From more information on Jobenomics Community-Based Business Generators, see <http://jobenomicsblog.com/wp-content/uploads/2016/08/Jobenomics-Community-Based-Business-Generators-15-August-2016.pdf>



to alternative lifestyles, and provide viable career paths for undereducated, lower-skilled and defrocked citizenry. Combined with other programs, like the successful Maricopa County Bridging the Gap Offender Reentry program, which has an amazing 4% recidivism rate for program graduates<sup>15</sup>, the JWRC could add a valuable addition to Phoenix's workforce and economic development arsenal of programs oriented to the most challenged members at the bottom of Arizona's socioeconomic pyramid. Unlike other reentry programs, the JWRC is designed to be self-funding and highly-scalable.

**JWRC-Phoenix Due Diligence Process.** From a Jobenomics perspective, due diligence is a process of systematically researching and verifying the accuracy of the background of an individual, and evaluating that individual's past experience and skills as a prelude to future employment and potential business ownership.

JWRC operations commence with identifying potential candidates in cooperation with local government and civic organizations that deal with at-risk youth, gangs and ex-offenders. Parole officers, police, churches, non-profit institutions, schools, sports teams and veterans groups are a great source for identifying talent, desire and fortitude. These organizations provide the first stage of the JWRC due diligence process via screening and assessing high-potential individuals who are known to them. Each candidate must be endorsed in writing by the sponsoring organization and undergo a thorough background and criminal assessment by local authorities.

Candidates will then go through the second and third stages of the due diligence process. The second stage consists of a battery of JWRC-administered personality, communication and skills aptitude tests. The third stage of the JWRC process applies these aptitude tests and leadership evaluations to determine potential career paths.

The JWRC due diligence process will be co-led by Mr. Doyle Davis and Mr. Hugh Ballou.

- Mr. Doyle H. Davis is the Founder and CEO of Phoenix-based The Team Vision (TTV). Mr. Davis was an at-risk youth, juvenile gang member, and twice incarcerated as an adult for burglary and armed robbery with possession of an unloaded gun. During his incarceration, he underwent a spiritual, educational and personal transformation. While at Rincon, he was a leader in the OK Community, which was a 24/7 dormitory designed to help inmates to reverse their downward spirals. He also established the first-ever newsletter, the InPrint, to give inmates a voice about their experiences. He was transferred to Perryville where he led Bible study groups and counseled fellow prisoners. He was one of the very few model inmates to be allowed to be married at Perryville. Mr. Davis was released from Perryville Prison in 1995. Throughout the subsequent 21-year period to today, he is married to the same wonderful woman, offense-free and a well-respected Phoenix community leader.



Mr. Doyle Davis

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<sup>15</sup> Bridging the Gap Offender Reentry Program, Center for Applied Behavioral Health Policy, 5 March 2015, [https://cabhp.asu.edu/sites/default/files/150305\\_bridging\\_the\\_gap\\_annual\\_report.pdf](https://cabhp.asu.edu/sites/default/files/150305_bridging_the_gap_annual_report.pdf), and The Arizona Republic, 11 May 2016, My Turn: Only 4 percent of Maricopa County inmates commit new crimes after participating in a program that helps them rejoin society, <http://www.azcentral.com/story/opinion/op-ed/2016/05/11/arizona-prison-recidivism/83616900/>

Post incarceration, Mr. Davis spent a substantial amount of his time and resources on self-improvement, motivational, spiritual, leadership programs, seminars, and college and vocational training to reunite with mainstream society. As a result of these betterment efforts, he earned 8-years of college credits from various postsecondary education and vocational training institutions.

Mr. Davis started and ran six different small businesses, including businesses related to network marketing, which will be a key area of interest in the JWRC. Established in 2009, Mr. Davis' TTV non-profit organization is focused on "bridging the gap to prosperity". By bringing together and enhancing several economic tools, starting with the nonprofit industry, the entire internet, the network marketing industry, and money management systems, TTV is endeavoring to build a new industry model that offers an alternative path for the socioeconomically disadvantaged to build businesses, charitable activities, prosperity and wealth.<sup>16</sup>

In summary, Mr. Davis considers himself a person who, like the mythological Phoenix, rose from the ashes of abuse, drugs, gangs, crime and incarceration to a productive citizen and community leader. See his 6-minute "rebel" video at <https://www.youtube.com/watch?v=R3viHXFwtFc> that he uses in his community outreach efforts.

- Mr. Ballou is a leadership expert who was recently featured in Forbes Magazine, the author of numerous books on leadership, business and workforce development, a long-time member of the core Jobenomics National Grassroots Movement team and a nationally-recognized consultant who has been mentoring and assisting Mr. Davis and his TTV team.

Other members of the JWRC-Phoenix management team include Pastor Hypolite Kayenda, an ordained minister whose focus is on minority and financially distressed individuals. Pastor Hypolite was born in the Democratic Republic of Congo and relocated to Phoenix in 1999. Pastor Hypolite is passionate about working with young people, who like him were born in poverty and suffered dysfunctional upbringings, with a goal to help them rebuild their lives and overcome their horrific experiences. The Pastor preaches that "you can dream again and live a great life by the grace of GOD." He has degrees in political science and administration, in addition to theology. He is also proudly married to his wife Sylvie and dedicated to jointly raising their three sons to be morally strong community leaders.



Pastor Hypolite Kayenda

Mr. Wayne Redd Sr. is CEO of Phoenix-based BKW Enterprises LLC, which assists clients with fundraising and capital campaigns for new and existing business expansion projects. He is skilled in leadership development, team building, program planning, coaching, recruiting, training and public speaking. Prior to BKW, he was a Program Coordinator in Phoenix with The MENTOR Network, national network of local health and human services providers offering an array of quality, community-based services to adults and children with intellectual and developmental disabilities, brain and spinal cord injuries and other catastrophic injuries and illnesses, and to youth with emotional, behavioral and medically complex challenges.



Mr. Wayne Redd Sr.

<sup>16</sup> The Team Vision, About, <http://www.theteamvision.net/aboutus.html>

**JWRC-Phoenix Post Due Diligence Operations.** After the due-diligence process is complete, each candidate will start an incorporated self-employed business replete with a business card, website, mission statement and 101-level business training. The reason for each candidate to own a self-employed business is that it will make them more competitive in the labor market whether or not their new business becomes operational.

Ms. Nicole Washington, Founder and CEO of the highly successful Micro Biz Coach enterprise in Los Angeles, will lead the self-employed business creation effort. Micro Biz Coach is a small business and minority-owned business advocate that is a one-stop-shop for people seeking to establish a startup business. Micro Biz Coach specializes in helping startups create, develop and enhance their business products and services through the integration of web-based technology into their business processes. Ms. Washington is also skilled with incorporating turnkey self-employed businesses, establishing merchant accounts, websites, social networking, affiliate marketing, and business ownership, management and operations training and online tutorials.<sup>17</sup>

Candidates will be separated into business leadership groups and high-potential employee groups for training. The leadership group will undergo business management and startup training. The high-potential employee group will undergo skills training based on the role that they will assume in the startup business (operational, technical, mechanical, financial, marketing, administrative, etc.). After the training is completed and certifications awarded, the team will commence startup operations under the guidance and assistance of the JWRC team.

While the overall goal is to mass-produce startup businesses, the JWRC will help all candidates to find meaningful employment. Many of the candidates are likely to prefer working for existing companies rather than going through the JWRC startup process. Anticipating this, the JWRC will implement a proven “pipeline system” to connect certified high-potential employees (as evidenced by Letters of Recommendations from sponsoring organizations and JWRC certifications, background checks from recognized government organizations, accredited aptitude and attitude test results, and articles of incorporation of a self-employed business) to companies that are hiring.

A common complaint that Jobenomics often hears from companies is that they have a very hard time finding high-potential people who want to work and who have the right combination of attitudes, aptitudes and skills for work. Consequently, the JWRC team includes a nationally recognized leader, Derrick Ware<sup>18</sup>, who developed a pipeline system for the Department of Defense that has matched 250,000 unemployed veterans with hiring companies. This system is ideally suited for matching JWRC candidates to local employment vacancies and future employment opportunities.

**JWRC-Phoenix Skills-Based Training and Certification Programs.** The JWRC skills-based training and certification programs will use nationally-accredited courses. Initial efforts will focus on technical

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<sup>17</sup> Micro Biz Coach, <http://micro-biz-coach.com/>

<sup>18</sup> Derrick Ware is the Managing Partner of Atriad Partners, management consulting firm that provides innovative and cost effective solutions in Human Capital Management and Diversity, and former Futures Inc, President of CTO, a dominant player in the Military Human Capital Management industry, <https://www.linkedin.com/in/derrickware>





training on network marketing and renewable energy. Additional occupational areas will be added to the Program Plan as the JWRC matures.

Jobenomics is teamed with The Hope Collection (THC, <http://thehopecollection.org>) for skills-based training and lifelong applied learning. Mr. Joel Griffing, THC Founder, will personally lead the JWRC-Phoenix Skills-Based Training and Certification program. The goal of the Jobenomics/THC skills-based training and certification program is “certifications in weeks, jobs in months and careers within a year.”

From a Jobenomics perspective, understanding the difference between education and training is fundamental to U.S. labor force development. Education is foundational and generally measured by tenure. Training is specific and measured by what one can do once completed. Educational degree-oriented programs are measured in years and are usually expensive. Training programs are often as short as weeks or months, and are relatively inexpensive. For people seeking careers, degree-oriented programs are usually the best choice. For the underprivileged, unskilled and poorly educated segment of society, certificate-oriented technical skills-based training provides the most effective way to getting a good job, the first step towards a meaningful career. For the most shunned element of American society (i.e., ex-offenders and would-be offenders) skills-based training and certification programs that can generate certifications in weeks, jobs in months and careers within a year, is likely to be the best way to reduce crime and recidivism rates.

THC’s 9,000 online skills-based training and certification programs are oriented to creating “careers within a year” in Health & Wellness, Performing and Fine Arts, Development and Housing, Technology, Energy, Communications, Faith-Based Leadership, Education, Food & Nutrition, and Family Support.

To deliver its skills-based training and certification programs, THC developed a cloud-based Virtual Value Interactive Network (a data base management system) used by tens of millions of people around the globe, managed by the Hope Resource & Research Center ([www.RRCenter.org](http://www.RRCenter.org)) and accessed free by Jobenomics Phoenix members via Optimize My Life (<http://www.optimizemylife.org>). Optimize My Life also provides a myriad of other free programs and coaching, education and marketplace services. The THC team includes leading, nationally-accredited, skills-based training and certification institutions in the United States, such as 360training (<http://www.360training.com/>), ExpertRating (<http://www.expertRating.com/>), Lake Technical College (<http://www.laketech.org/>) and American Institute of Small Business (<http://www.ed2go.com/business/>). In addition, THC is working with market leaders, eBay and Amazon, to incorporate their online service-providing channels.

America’s labor force is in a state of transition from a standard full-time work force to a contingent workforce that consists of part-time, temporary, contract labor, independent contractors, consultants and free-lancers who are called “contingency workers”. Today, 40% of all American workers are in the “contingent workforce.” In the inner-cities across America, the percentage of contingency workers is much higher than 40% due to depressed industries and low-skilled workers. For former offenders and gang-members contingent work is likely to be the only type of work available since they are often barred from standard employment.

Today's changing global marketplace produces employees who can be business owners at the same time. Such an environment turns costs to cash, equity and donations that support the causes of their choice and pay for a government to secure and facilitate the environment for the common good. Through its high-tech virtual incubator and high-touch community centers, THC is providing both a virtual and hands on network to facilitate the process. Each JWRC-Phoenix member will have access to proven tools to build their estates in concert with others who are doing the same, while funding the support systems to facilitate and sustain the community.

The Hope Resource & Research Center (HRRC) is a for-profit subsidiary of The Hope Collection that is supported by the VVIN data base, project management system that organizes and sustains “affinity groups” such as business owners, workers, veterans, first responders, extended families of each group, generational population groups (Baby Boomers, Millennials etc.), marginalized groups (ex-offenders, disabled, abused etc.) as well as geographical groups (e.g., Jobenomics Phoenix). The HRRC will provide both initial training as well as “lifelong applied training” that will update worker and business skills throughout their lifetime. The Jobenomics Phoenix Community-Based Business Generator will provide local ICT (information, communications and technical) and hands-on support to the HRRC.

The Jobenomics THC concept for lifelong applied learning, continuous career advancement and micro-business development incorporates a “duplex” micro-financing economic model for the contingent workforce and family members of the standard (full-time employed by corporations) workforce.

A duplex micro-financing economic model provides skilled-based training in multiple arenas that can then be incorporated for individuals and their family into an “S” Corporation/Family Limited Partnership structure. An S Corporation is a special type of corporation frequently used by self-employed and micro-businesses that allows shareholders to avoid double taxation by the IRS. A Family Limited Partnership (FLP) is a type of partnership designed to centralize family business or investment accounts, and frequently used to move wealth from one generation to another. FLPs pool together a family's assets into one single family-owned business partnership in which family members own shares. As part of the Duplex, each person/family member's S Corp can use the HRRC's “e-Pantry in the Cloud” online shopping to convert purchases into a double digit tax-sheltered investment account. This investment account can be then reinvested into other equity-building opportunities (stock market, IRA/Keogh funds, insurance and charitable trusts, etc.) to build net worth as well as retirement and education accounts. To see a short video on the duplex micro-financing economic model narrated by Joel Griffing can be accessed by clicking [here](#).



### Other JWRC-Phoenix Training and Certification Programs.

*Network Marketing.* Mr. Davis and Mr. Redd are experts in network marketing and the creation of minority-owned businesses. Network marketing helps people become independent thru personal

development, promotes people by giving them the opportunity to own their own business to become entrepreneurs and small business owners.

According to the Small Business Encyclopedia, “network marketing is a type of business opportunity that is very popular with people looking for part-time, flexible businesses. Some of the best-known companies in America, including Avon, Mary Kay Cosmetics and Tupperware, fall under the network marketing umbrella. Network marketing programs feature a low upfront investment—usually only a few hundred dollars for the purchase of a product sample kit—and the opportunity to sell a product line directly to friends, family and other personal contacts. Most network marketing programs also ask participants to recruit other sales representatives. The recruits constitute a rep's ‘downline,’ and their sales generate income for those above them in the program.”<sup>19</sup>

Unfortunately, the traditional network marketing industry has not lived up to its dream of widespread prosperity due its inability to create success for only 5% of the people who attempt to become self-sufficient. Mr. Davis and his TTV team’s mission is to significantly improve success rates of network marketing by merging the inherent power of traditional network marketing with online opportunities in the rapidly growing digital economy. Mr. Davis believes that Phoenix can build hundreds, and potentially thousands, of social business enterprises through TTV’s nonprofit network marketing approach called H.O.P.E. that stands for Helping Others Prosper Efficiently. For ex-offenders and would-be-offenders hope is often the single greatest missing ingredient. According to Mr. Davis, by putting hope first, these communities can work together, “one thought at a time, one person at a time, one dream at a time and one victory at a time.”<sup>20</sup>

Jobonomics 200-page Network Technology Revolution report explores network marketing in depth in relation to the emerging digital economy.<sup>21</sup> The digital economy (also known as the web economy, internet economy, network-centric economy, or the new economy) is an economy that is based on digital and networked technologies, which is increasingly intertwining and preempting today’s traditional economy. While the U.S. economy is currently only 5% digital, the digital economy is growing at a rate of 15% to 20% per year. The McKinsey Global Institute forecasts that the global economic impact of the digital economy could meet or exceed today’s traditional economy within the next ten to fifteen years.<sup>22</sup>

According to James McQuivey, a leading analyst tracking the development of digital disruption, as compared to the traditional economy, a digital economy is at least one hundred times easier to create and has ten times the number of innovators that can innovate at one-tenth the cost. In

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<sup>19</sup> Entrepreneur, Small Business Encyclopedia, Network Marketing Definition, <https://www.entrepreneur.com/encyclopedia/network-marketing>

<sup>20</sup> The Team Vision, H.O.P.E., <http://www.theteamvision.net/hope.html>

<sup>21</sup> Jobonomics Network Technology Revolution, Initial Report (200-Page report release scheduled 1 January 2017), <http://jobonomicsblog.com/network-technology-revolution/>

<sup>22</sup> McKinsey Global Institute, Disruptive Technologies: Advances That Will Transform Life, Business and the Global Economy, May 2013, file:///C:/Users/CHUCK/Downloads/MGI\_Disruptive\_technologies\_Full\_report\_May2013.pdf

addition, digital startups are much faster than traditional startups, which can create an exciting opportunity for those that can capitalize on the momentum of the emerging digital economy.<sup>23</sup>

Network marketing will be a key disciple in the Digital Economy's high-growth areas such as e-commerce and m-commerce. E-commerce involves networking customers, suppliers and partners, including sales, marketing, order-taking, delivery, customer service, purchasing and procurement. E-commerce is primarily involved with online transactions like purchasing and shopping as well as free transactions like downloads and information exchange. M-commerce is the buying and selling of goods and services through wireless handheld devices such as mobile phones, pads, tablets and laptops. The E/M Economy has given rise to new forms of marketing (affiliate marketing, referral marketing, loyalty marketing and customer-paid marketing) as an alternative to traditional email marketing that is in a state of decline.

In the digital economy, network marketing is relatively racially, ethnically, nationality and demographically agnostic regarding those who market and sell products and services via the internet. Generation Z, called Screenagers by Jobenomics due to the excessive amount of time online screen time that youngsters absorb, are true digital natives. Digital natives will shepherd America into tomorrow's digital economy. Today's digital natives are largely self-taught from countless hours on the internet. A great percentage of these young workforce entrants view industrially-oriented career paths with a high degree of skepticism. This is especially true for juvenile gang members and at-risk who far more digitally-savvy than older generations. As advocated by Adam Smith, the forefather of today's classical free market economy, when individuals pursue their self-interest, they indirectly promote the greater good of society by producing vital goods, services and tax revenues for society. Accordingly, the JWRC will help provide legitimate employment and career opportunities for Phoenix's would-be-offender digital natives in the emerging digital economy as well as orienting their digital skills to productive traditional economy employment pursuits.

*Renewable Energy.* Renewable energy is one of the highest growth areas in today's economy.

Jobenomics' 160-page Energy Technology Revolution Report is a unique energy technology report inasmuch as it looks at the U.S. energy ecosystem from a business and job creation perspective.<sup>24</sup> Jobenomics asserts that the Energy Technology Revolution is likely to produce millions of small and self-employed businesses and tens of millions of jobs, many of which are ideally suited for the formerly incarcerated, gang members and at-risk youth.

According to the U.S. EIA Annual Energy Outlook report, total U.S. energy consumption is forecast to increase slowly over the foreseeable future (97 quadrillion BTU in 2015 to 104 quadrillion BTU in 2030). Renewable energy will be the fastest growing sector in the U.S. energy ecosystem, especially in the Southwest region of the United States.

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<sup>23</sup> James McQuivey, Digital Disruption: Unleashing the Next Wave of Innovation, Figure 1-1: Digital Disruption Creates One Hundred Times the Innovation Power, Page 11.

<sup>24</sup> Jobenomics Energy Technology Revolution Report, <http://jobenomicsblog.com/energy-technology-revolution/>



## US Renewable Energy Consumption Growth Forecast

As shown, solar will be the fastest growing segment (306%), followed by geothermal (220%), wind (45%), biomass/biofuels (19%), hydroelectric (10%) and municipal waste (10%).

The JWRC’s initial skills-based training and certification efforts will focus solar installation and maintenance services.

Total Energy Consumption All Sectors

Consumption	2013	2030	Growth Rate
	Quadrillion Btu		
Wood	0.58	0.38	-35%
Biomass, Biofuels	3.57	4.25	19%
Hydroelectric	2.54	2.80	10%
Geothermal	0.16	0.50	220%
Municipal Waste	0.42	0.46	10%
Solar	0.08	0.34	306%
Wind	1.59	2.32	45%
<b>Total</b>	<b>8.95</b>	<b>11.05</b>	<b>23%</b>

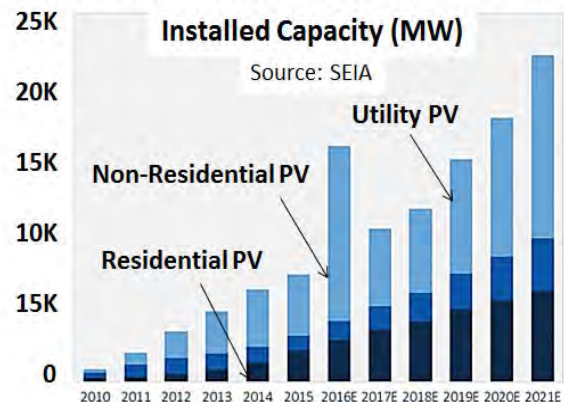


Source: EIA Annual Energy Outlook 2015

According to the latest U.S. Solar Market Insight Report 2015 Year in Review, published in conjunction with the Solar Energy Industries Association (SEIA), the U.S. is on the verge of the 1 millionth solar installation milestone.<sup>25</sup>

As shown, anticipating a threat of the federal Solar Investment Tax Credit (ITC) expiring at the end of 2016, developers and EPC (Engineering, Procurement, and Construction) companies filled their pipelines with projects that caused a large pump in installed capacity in 2016. Now that this threat is largely abated, SEIA forecasts robust growth through 2021. In addition, the SEIA projects that the solar installation industry will add “hundreds of thousands of well-paying solar jobs will be added in the next few years benefiting both America’s economy and the environment.”

## U.S. Solar PV Installation Forecast



Other examples of renewable energy services include: energy efficiency, energy conservation, Energy-as-a-Service (EaaS), energy assurance, energy security, and disaster preparedness and recovery. Energy efficiency serves as an excellent example as a potential JWRC training program. Energy efficiency is one of the fastest growing American service industries. Today, energy efficiency is a multi-billion dollar industry with the potential to grow much higher. According to the American Council for an Energy-Efficient Economy, “robust investment in energy efficiency could save \$1.2 trillion by 2020, and the United States could create 1.3 to 1.9 million jobs by 2050 through the deployment of energy efficient technologies.”<sup>26</sup> Similarly, the Alliance to Save Energy projects 1.3

<sup>25</sup> Solar Energy Industries Association, 12 September and 9 March 2016, <http://www.seia.org/research-resources/us-solar-market-insight> and <http://www.seia.org/news/us-solar-market-set-grow-119-2016-installations-reach-16-gw>

<sup>26</sup> American Council for an Energy-Efficient Economy (ACEEE), ACEEE White Paper Energy Efficiency Job Creation: Real World Experiences, October 2012, [aceee.org/files/pdf/white-paper/energy-efficiency-job-creation.pdf](http://aceee.org/files/pdf/white-paper/energy-efficiency-job-creation.pdf)



million jobs by 2030.”<sup>27</sup> According to The Solar Foundation, the solar industry is creating jobs nearly 20-times faster than the overall U.S. economy.<sup>28</sup>

Distributed and dispersed electrical generation installation services are likely to provide a significant percent of the number of future jobs and startup businesses created by the JWRC. Distributed and dispersed generation technologies generate electricity near the particular load they are intended to serve—at the point-of-consumption. Generating power at the point-of-consumption eliminates cost, complexity, interdependencies and inefficiencies associated with transmission and distribution.

- *Distributed generation* generally entails using many medium-sized solar, wind or natural gas generators that provide power to local (as opposed to long-distance) consumers in cities, towns, universities, industrial parks and government buildings. These medium-sized generations can be used on-grid or off-grid.
- *Dispersed generation* refers to small generating units that serve individual homes or businesses. These units (fossil fuel turbines, fuel cells, small wind and solar PV generators) are small enough to fit in garages or on rooftops and are usually off-grid unless connected to net-metering systems. Dispersed generation includes micro-units that are embedded components of other systems from electronic devices, water heaters, traffic cameras, cell towers and even electric cars. These micro-units are often off-grid.

In sunny Arizona, the most likely distributed and dispersed electrical generation installation services are likely to involve solar photovoltaics (PV). Solar PV devices use semiconducting materials to convert sunlight directly into electricity. There are currently two solar PV technologies in production: crystalline silicon and thin film. Almost 90% of the world’s photovoltaics today are based on some variation of crystalline silicon. Crystalline solar panels are the most commonly used silicon for residential and small-scale applications. Crystalline panels are more expensive than thin film but are space-efficient and long-lasting. Thin-film solar cells are less expensive since they are mass produced, whereas crystalline panel production is more labor intensive. In comparison to crystalline silicon panels that are hard, opaque and heavy, thin-film technology is flexible, lightweight and translucent, which makes it ideal for customized applications.

1<sup>st</sup> generation silicon solar panels and 2<sup>nd</sup> generation solar thin-film technologies are restrained by the Shockley-Queisser limit of 34% power efficiency (the amount of sunlight power turned into electricity), whereas 3<sup>rd</sup> generation multi-layer solar cells may be able to approach efficiencies near 86%. Consequently, next-generation solar systems are likely to be much more efficient and significantly cheaper than current 1<sup>st</sup> generation solar panels. From a JWRC standpoint, each next generation of new solar technologies will produce significant number of new small installation businesses and jobs as more and more commercial and residential buildings adopt new technologies to replace older less efficient systems.

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<sup>27</sup> Schmutter, Allyson, Alliance to Save Energy, Diverse Commission Unveils Plan to Double U.S. Energy Productivity, 7 February 2013, <http://www.ase.org/news/diverse-commission-unveils-plan-double-us-energy-productivity>.

<sup>28</sup> The Solar Foundation, Press Release, 15 January 2015, <http://www.thesolarfoundation.org/press-release-solar-industry-creating-jobs-nearly-20-times-faster-than-overall-u-s-economy/>

Solar PV technology is evolving to the point that it can be embedded in roof shingles, or peel-and-stick thin-film solar cells. This will allow easy applications to buildings and structures, such as windows, without the cost of cumbersome mounting mechanisms. One-third of today's PV generation is owned by third-party private companies that provide solar electricity or equipment to generate electrical power to building-owners and tenants, typically with little or no upfront costs. With net-metering, every building owner would constitute a micro-business that provides supplemental or emergency power to the grid as needed. Millions of renewable power micro-businesses would embody a "virtual grid" that could alleviate America's multi-trillion dollar national grid modernization headache.

Initial JWRC renewable energy training and certification programs will be designed and led by Mr. Joe Sarubbi who is a project manager for two national Department of Energy initiatives, the Solar Instructor Training Network (SITN), and Grid Engineering for Accelerated Renewable Energy Deployment (GEARED). The goal of the SITN was to grow the capacity of individuals with solar skills to support the rapid growth of the solar industry.

Under Mr. Sarubbi's leadership, a team of nine Regional Training Providers partnered with nearly 500 community colleges, and over 1,000 instructors received training. During the five-year span over 30,000 individuals received solar training throughout the United States. He is also working with a large consortium of major universities and utilities to grow the technological expertise and human capacity of Power Systems Engineers to support distributed generation and smart-grid technologies.

As a Board Member of the North American Board of Certified Energy Practitioners (NABCEP), Mr. Sarubbi advises cities, states and numerous institutions regarding energy workforce development. Mr. Sarubbi was the main architect of New York State's TEC-SMART, America's first totally integrated Training and Education Center for Semi-Conductor Manufacturing and Alternative and Renewable Technologies, and in 2009 was honored by the visit of President Obama in which the President recognized his work as a "model program" for other states and cities to emulate.

### **Mr. Sarubbi with President Obama and Mrs. Biden at TEC-SMART**



A long-term objective of the Jobenomics team is to work with municipal and Arizona officials to develop a similar TEC-SMART facility in Phoenix as a future extension of the JWRC efforts.



## Projected JWRC Training Program Staffing and Costs

### Projected JWRC Staffing and Costs: Startup through Year 2

As of 3 December 2016		Startup (6 Months)		Year 1		Year 2			
JWRC-Phoenix Budget		#	Salary Average	\$ Total	#	Salary Average	\$ Total		
<b>Personnel</b>		<i>Average Cost-of-Living in Phoenix \$48,000</i>		<i>FTE (Full-Time Equivalent)</i>					
Full-Time (Staff)	3	\$50,000	\$ 150,000	4	\$60,000	\$ 240,000	4	\$60,000	\$ 240,000
Full-Time (Instructors/Counselors)				3	\$60,000	\$ 180,000	3	\$60,000	\$ 180,000
Full-Time Employee Benefits (25%)			\$ 37,500			\$ 105,000			\$ 105,000
Part-Time FTE (Instructors)	3	\$60,000	\$ 180,000	5	\$70,000	\$ 350,000	5	\$70,000	\$ 350,000
Part-Time FTE (Counselors)				3	\$70,000	\$ 210,000	3	\$70,000	\$ 210,000
Part-Time FTE (ITC Support)	1	\$60,000	\$ 60,000	2	\$70,000	\$ 140,000	2	\$70,000	\$ 140,000
Part-Time FTE (Speakers, Consultants)				2	\$70,000	\$ 140,000	2	\$70,000	\$ 140,000
<b>Operational Costs</b>									
Rent/Lease (10K sq/ft @ \$15 sq/ft)			\$ 75,000			\$ 150,000			\$ 150,000
Build Out/Construction			\$ 250,000			\$ 50,000			\$ 50,000
Utilities/Supplies			\$ 12,600			\$ 25,200			\$ 25,200
Automotive Lease (Van)	1		\$ 6,000	1		\$ 12,000	1		\$ 12,000
Other Transportation			\$ 6,000			\$ 12,000			\$ 12,000
Furniture/Appliances/Miscellaneous			\$ 12,000			\$ 6,000			\$ 6,000
Insurance (Building, Auto)			\$ 6,000			\$ 10,000			\$ 10,000
<b>Subtotal Budget</b>			\$ 795,100			\$ 1,630,200			\$ 1,630,200
10% Reserve			\$ 79,510			\$ 163,020			\$ 163,020
<b>Total Budget</b>			<b>Startup \$ 874,610</b>			<b>Year 1 \$1,793,220</b>			<b>Year 2 \$1,793,220</b>

### Projected JWRC Staffing and Costs: Year 3/4

As of 3 December 2016		Year 3		Year 4			
JWRC-Phoenix Budget		#	Salary Average	\$ Total	#	Salary Average	\$ Total
<b>Personnel</b>							
Full-Time (Staff)	5	\$70,000	\$ 350,000	8	\$70,000	\$ 560,000	
Full-Time (Instructors/Counselors)	7	\$70,000	\$ 490,000	10	\$70,000	\$ 700,000	
Full-Time Employee Benefits (25%)			\$ 210,000			\$ 315,000	
Part-Time FTE (Instructors)	8	\$80,000	\$ 640,000	10	\$80,000	\$ 800,000	
Part-Time FTE (Counselors)	7	\$80,000	\$ 560,000	10	\$80,000	\$ 800,000	
Part-Time FTE (ITC Support)	2	\$80,000	\$ 160,000	10	\$80,000	\$ 800,000	
Part-Time FTE (Speakers, Consultants)	5	\$80,000	\$ 400,000	10	\$80,000	\$ 800,000	
<b>Operational Costs</b>							
Rent/Lease (10K sq/ft @ \$15 sq/ft)			\$ 150,000			\$ 150,000	
Build Out/Construction			\$ 50,000			\$ 50,000	
Utilities/Supplies			\$ 27,600			\$ 27,600	
Automotive Lease (Van)	2		\$ 24,000	4		\$ 24,000	
Other Transportation			\$ 18,000			\$ 18,000	
Furniture/Appliances/Miscellaneous			\$ 6,000			\$ 6,000	
Insurance (Building, Auto)			\$ 15,000			\$ 15,000	
<b>Subtotal Budget</b>			\$ 3,100,600			\$ 5,065,600	
10% Reserve			\$ 310,060			\$ 506,560	
<b>Total Budget</b>			<b>Year 3 \$ 3,410,660</b>			<b>Year 4 \$5,572,160</b>	

As shown above, after startup, annual costs of operation are estimated at \$1,793,220 per year with a full-time equivalent staffing of 19 staff/instructors/ counselors/speakers/consultants/support



personnel. It is estimated that this staff can train approximately 100 ex-offender and would-be-offender clients each month.

By the end of the 1<sup>st</sup> operational year, Phoenix officials and JWCR investors should have evidence of the success of JWRC due diligence, training and certification programs. If deemed unsuccessful, the JWRC would have spent \$2.7 million which is not a significant investment compared to the amount that Arizona is investing in incarceration, gang mitigation and at-risk youth prevention. The 2<sup>nd</sup> operational year will maintain the same level of training as the 1<sup>st</sup> year, but will add a JWRC electronic waste materials reclamation facility operation that will be incorporated as a non-profit company.

A JWRC-owned and operated electronic waste (e-waste) materials reclamation facility will provide 45 direct jobs and 3-times to 5-times as many indirect/induced jobs. The e-waste operation is expected to generate between \$1 million to \$12 million per year in profit that will make the JWRC self-sustaining. A 3-shift, 5-tons/hour operation could produce an annual net income of \$11,867,926 (37% EBITDA). This level of profitability will cover facility operating costs, retire investor debt, pay for costs of additional JWRC skills-based training and certification programs, and provide seed capital for micro-business loans.



## JWRC-eCycling-Phoenix Overview

By the end of the 2<sup>nd</sup> operational year, Phoenix officials and JWRC investors should have an excellent understanding of the revenue generating phase of the JWRC’s electronic waste (eCycling) materials reclamation facility (MRF, pronounced “murf”) operation. JWRC-eCycling-Phoenix MRF is expected to be operational at the end of the Year 1, produce \$1.1 million of net income (profit) in Year 2, \$3.8 million in Year 3, and as much as \$11.9 million in Year 4. This level of profitability will cover MRF operating costs, retire a significant portion of investor debt, pay for costs of additional JWRC skills-based training and certification programs, and provide for micro-business loans.

**Background Material:** Compared to other goods-producing industries (manufacturing, construction and mining), light industry is usually less capital intensive, more environmentally friendly and typically uses low cost materials to produce items of relatively higher value. Light industry is ideally suited for the ex-offender labor force. Consequently, the JWRC team plans to develop a light industry complex starting with an advanced technology electronic waste (e-waste) materials reclamation facility.

### Pictures of an Operational Advanced Technology MRF



### Advanced Technology MRF Generated Raw Materials

#### eScrap & Electronics

Waste Electrical and Electronic Equipment



**Copper Plastics Aluminum Iron Gold Silver Palladium & Other Precious Metals**

#### Refrigerators, Air Conditioners

Containing Air Polluting Refrigerants



**Copper Plastics Aluminum Iron**

#### TV/PC Tubes

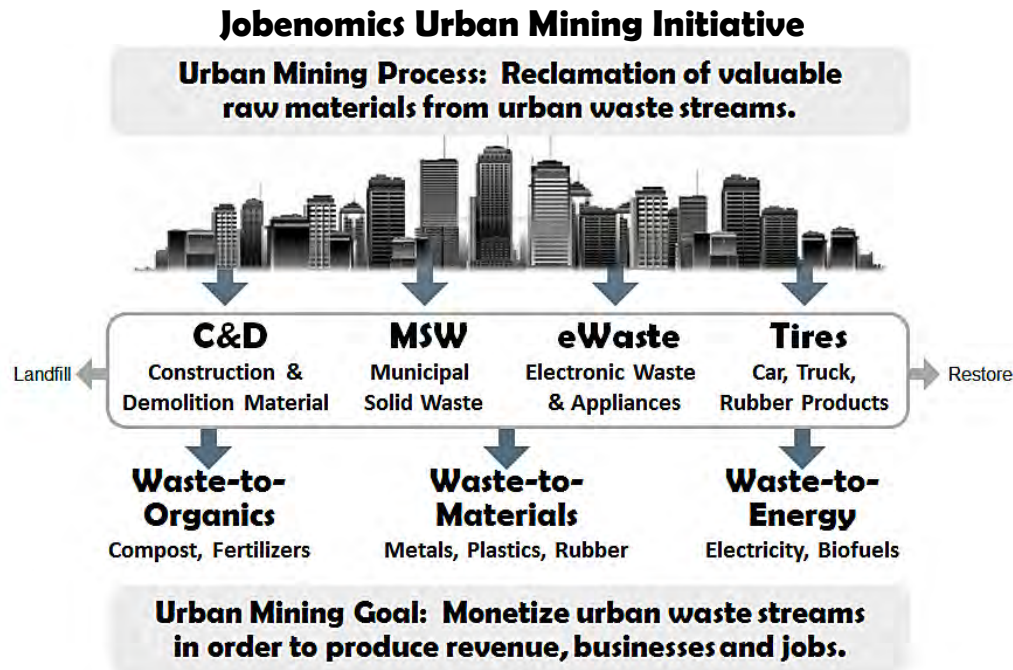
Cathode Ray Tubes



**Glass Metals Plastics**  
Including Lead & Mercury



An advanced technology e-waste MRF is able to extract high value raw materials (plastics) and metals (copper, aluminum, and iron/steel) from appliances, computers and peripherals, electronic scrap, consumer electronics and electronic scrap from manufacturing, construction and demolition operations. Raw material is then repurposed either by selling to commodities buyers or used in new light industrial manufacturing operations, such as molded plastic products (e.g., containers, decking and other commonly used plastic products).



One of the Jobenomics national-level initiatives involves urban mining. Urban mining is defined as a process of reclaiming organic combustible and inorganic non-combustible materials from waste streams including municipal solid waste (MSW), construction and demolition material (C&D), electronic waste (e-waste), tires and other waste streams. Combustible materials are comprised of carbon-based matter that has caloric value, which can be converted to marketable products via waste-to-organic and waste-to-energy technologies. Non-combustible elements can be reclaimed via waste-to-material technology. Every U.S. community should consider urban mining to (1) reclaim valuable raw materials and metals, (2) reduce toxic landfilling<sup>29</sup> and exporting of waste, (3) mitigate environmental pollution associated with traditional surface and subsurface mining operations, and (4) produce revenue for local business and job creation.

Jobenomics’ Urban Mining Initiative (UMI) helps communities monetize high value waste streams in order to create jobs and fund local small business generation efforts. As part of UMI, Jobenomics established eCyclingUSA™ ([www.eCyclingUSA.com](http://www.eCyclingUSA.com)) to reclaim high value metals from electronic waste streams and use profits to fund Jobenomics Community-Based Business Generators.

eCyclingUSA has partnerships with two of the world’s leading electronic waste recycling and materials reclamation manufacturers for building and implementing state-of-the-art turnkey e-waste U.S.

<sup>29</sup> It is estimated that 40% of the heavy metals in U.S. landfills come from discarded electronics.

plants. Over 100 plants are operational in Europe and other countries. There are few comparable U.S. plants that shred vast amounts of e-waste raw materials into pellets in minutes and aggregate these pellets by type (copper, aluminum, iron, plastics) for sale or use in light manufacturing. eCyclingUSA processes are accomplished in a closed environment to prevent any leakage of potential pollutants or even dust into the environment.

The material reclamation industry (often called the material recovery industry) is generally referred to as the “scrap” industry. According to the Institute of Scrap Recycling Industries (ISRI), “While many in the public policy world talk about the need for more green jobs, the scrap recycling industry has been creating environmentally friendly jobs and other opportunities in the United States for decades....The U.S. scrap recycling industry is a major economic engine powerful enough to create 471,587 jobs and generate \$11.2 billion in tax revenues for governments across the country, all while making the old new again and helping to protect the earth’s air, water, and land for future generations.”<sup>30</sup> According to ISRI data, the direct economic impact of the Phoenix scrap recycling industry is low (\$464,026,100) compared to other cities like Houston (\$778,616,700). Phoenix’s direct, indirect and induced economic impact could be significantly increased with advanced technology e-waste MRFs along with a well-conceived public/private partnership plan.

## Types of E-Waste (EPA versus Jobenomics Definition)

### Types of eWaste

- **Household Electronics**
  - IT-Related Products (EPA definition)
  - Consumer Electronics
  - Large Appliances
  - Small Appliances
  - Cleaning/Power Tools
  - Entertainment Systems
  - Toys & Other Electrical Items
- **Business**
  - Computers, Servers, Peripherals
  - Hardware, Cabling, Ducting, Racks
  - Vending Machines & Other Items
- **Government** (Federal, State, Local)
- **Educational, Medical & Industrial**
- **Construction & Demolition Materials**



eCyclingUSA plant can process these items quickly and cleanly.

The U.S. EPA defines e-waste as end-of-life personal computers, monitors and peripherals (printers, keyboards, mice, etc.). Jobenomics/eCyclingUSA further defines e-waste as consumer electronics (small appliances, toys, tools, etc.); discarded government, business, medical and industrial equipment (servers, racks, vending machines, hardware, etc.); and C&D scrap associated with demolished buildings (wiring, HVAC systems, water heaters, ducting, lighting, refrigerators, stoves, dishwashers, etc.).

<sup>30</sup> Institute of Scrap Recycling Industries Inc., Putting Americans to Work, <http://www.isri.org/recycling-industry/jobs-in-the-u-s-scrap-recycling-industry/job-study-analysis#.WEFvarIrJQI>

Compared to organic material, inorganic electronic-waste (e-waste) materials has (1) much higher monetary value, (2) greater contribution to mitigation of greenhouse gas emissions and energy conservation of virgin metals and minerals, and (3) higher business and employment potential.

**Prior Jobenomics/eCyclingUSA Activities in Phoenix:** In 2013, after several weeks surveying the Phoenix and Tucson metro areas for a potential e-waste advanced technology MRF, the Jobenomics/eCyclingUSA team met with Phoenix Mayor Greg Stanton, City Manager David Cavazos, members of the City Council and the City’s Solid Waste Managers regarding establishing a large advanced technology MRF for e-waste, e-scrap and large appliance processing.

Mayor Stanton was very interested in the employment potential (300 to 500 jobs) of a privately-owned eCycling-Phoenix operation that would be formed as a B-Corporation dedicating 10% of its profits to a local small business and job creation effort. Unfortunately, the Solid Waste Manager was less enthusiastic since the city’s e-waste was being disposed in landfills or exported to China. The Solid Waste manager acknowledged that they allowed companies to handpick high-value electronic waste items for shipment to China (using the now empty 40 foot shipping containers that originally brought foreign electronics to Arizona) for \$10 per ton—a fraction of what the material was worth. The meeting ended on a positive note with Mayor Stanton’s pledge to support our efforts and would welcome a return visit once our plan was ready to be implemented.

In 2014 and 2015, the Jobenomics/eCyclingUSA team assembled an eCycling-Phoenix team, identified sources of feedstock and identified a 150,000 square foot building for a 20 ton per hour operation. As stated, this operation was designed as a for-profit enterprise with 10% of the profit going to charitable solutions. Unfortunately, the \$30 million price tag for the implementation of a B-Corp combined with falling commodity prices was a bridge-too-far for investors. The project was put on hold.

Since then, the Jobenomics/eCyclingUSA team refined its approach to urban mining to utilize a much greater percentage of MRF profits for funding large-scale small business and job creation efforts. eCyclingUSA and the German manufacturing partners designed small, entry-level (3 to 5 ton per hour) and affordable MRF (≈\$5 million) that could be located on several acres of land and a building as small as 15,000 square feet. Jobenomics also designed a workforce development approach that would cater to the most financially distressed citizens at the base of America’s socioeconomic pyramid.

In the tri-county region of Southern Maryland, a non-profit organization is planning to implement a \$5 million MRF as a center for e-waste refurbishment, processing and training for disabled and special-needs citizens. West Baltimore is looking at a similar non-profit enterprise to process end-of-life government and business electronics, appliances and other forms of e-scrap as part of a major initiative to restore 30,000 city-owned derelict homes with a goal of creating 24,000 new jobs. Jobenomics/eCyclingUSA is also working with a number of other communities (e.g., New York City) to implement a public/private e-waste MFR strategy to self-fund “mass production” of highly-scalable small businesses and jobs with a pilot project in Harlem, one of the most financially-distressed and crime-ridden municipalities in NYC.

**JWRC-eCycling-Phoenix.** The JWRC-eCycling-Phoenix team will initially focus on an e-waste only (no large appliances or industrial equipment) MRF and related logistics (collection, transportation and warehousing). This initial \$4 million MRF (not including purchase or lease of a building) is designed to employ up to 45 direct personnel (and 3 to 5-times as many indirect/induced jobs) and generate annual profits of up \$11.9 million per year on a 3-shift per day, 300 day per year operation.

### Entry-Level 3-5 Tons Per Hour eCyclingUSA/URT Equipment & Options



For Estimating Purposes Only  
12 December 2016



E-Scrap Equipment	Throughput Description	Price @ \$1 = 1.3€	Electrical Power	Sq. Ft.	Labor	Comments
URT SDA; WEEE (E-Scrap) Step I & II	3-5 tons/hr	\$2,817,433	160kW 480V 60Hz	1250	15	Without Optical Sorting Device
URT CRT, PC, Printer & Cartridge	400 pieces/hr	\$673,769	30kW 480V 60Hz	750	12	Line within Cutting Device
Cable/Wire Shredder/Separation	0.3 tons/hr	\$323,054	85kW 480 60Hz	50	2	-

URT Equipment **\$3,814,256**

**25,000 Sq. Ft. Building**



**Truck Scale**



**Containers**



Optional Facility/Equipment	Price	Electrical Power	Sq. Ft.	Labor	Comments
25,000 Square Foot Building with 40' Height (Building \$235,000, concrete slab \$160,000, erection cost \$505,000; buildout \$330,000, HVAC/fixtures \$30,000, architectural and engineering \$85,000, IT/telecom \$80,000, furniture/miscellaneous \$150,000). Assuming basic utilities are already available at site.	\$1,575,000	Standard	1 to 3 acres	-	Large enough for reburishment and reuse activities, expansion room to handle future large appliances (e.g., refrigerators, etc.), classrooms, conference room and break room. Elegant enough for a showplace to attract customers and grants.
Truck Scale	\$150,000	Standard		2	-
Storage and Collection Containers (10 20-yard containers \$8,000, 10 40-yard containers \$16,000)	\$24,000	N/A		5	Can buy used or leased
Handling Equipment (Forklifts, Handling Devices, Pickup Truck, Semi-Trailer Truck & Roll-Off Trailer)	Rent	N/A		9	Can buy used or leased

Optional Equipment **\$1,749,000**

Total Labor **45** Estimated

Total Equipment **\$5,563,256**

eCyclingUSA Fee (6%) **\$333,795**

**Total Cost \$5,897,051 Including New Building**

Jobenomics/eCyclingUSA will provide JWRC-eCycling-Phoenix with a turnkey system using proven European technology that is currently operational in over 100 cities around the world. The JWRC e-waste MRF can be operational within 12 months of contract award. The MRF will be located in a Phoenix metropolitan area that is zoned for light industrial manufacturing. The MRF does not produce any harmful emissions so permitting should not be an issue.

JWRC-eCycling-Phoenix will employ up to 45 direct employees and 3-times to 5-times as many indirect/induced workers, which is a standard ratio for manufacturing-related industrial operations.



An entry-level startup 3-5 tons per hour plant will cost approximately \$4 million for equipment and \$2 million for building and land, which can be leased instead of being purchased. Funding for the plant will be mainly provided by private sources with limited funding from government (building/road enhances, grants, HUD Section 3 financing, bonds, etc.). eCyclingUSA’s German partner (UNTHA Recycling Technologies, URT) can arrange low-interest rate financing up to 70% of the equipment cost for accredited private sector investors via the German Export Bank’s Euler Hermes program.

## 1-Shift Operation Feedstock Requirements



**40 Tons Per Day**  
(2 Shipping Container Equivalents)

## \$ Value of e-Waste Raw Materials

*For Estimating Purposes Only*

### 5 Tons Per Hour, 1-Shift Operation, 300 Days Per Year

Feedstock: Computers, Consumer Electronics, Small and Large Appliances

Metal/Material	% of e-Waste	\$s per Metric Ton*	\$/Ton (2204 pounds)	Total \$/Year (5 tons/hour x 8 hour/day x 300 days/year)
Iron/Steel (Fe)	20%	\$ 195	\$ 39.00	\$ 468,000
Copper (Cu)	5%	\$ 4,430	\$ 221.50	\$ 2,658,000
Aluminum (Al)	20%	\$ 1,300	\$ 260.00	\$ 3,120,000
ABS Plastics	10%	\$ 1,675	\$ 167.50	\$ 2,010,000
Other Plastics/Foam	40%	\$ 287	\$ 114.80	\$ 1,377,600
Computer Components	5%	\$ 2,466	\$ 123.31	\$ 1,479,766

Source: Jobenomics, eCyclingUSA 100%

Revenue\*\* \$ **11,113,366**

Cost of goods sold \$ **7,327,000**

Operating expenses \$ **2,660,000**

\*Scrap prices as of 3 December 2016

\*\*Does not include grants, tax incentives or tipping fees

**Net Income \$ 1,126,366**

**EBITDA 10%**

This chart shows estimated profitability of a 1-shift operation (8 hours per day, 300 days per year) of the JWRW-eCycling-Phoenix entry-level, 5-tons per hour e-waste-only MRF. A 1-shift operation is estimated to produce an annual net income (profit) of \$1,126,366 (10% EBITDA, Earnings Before Interest, Tax, Depreciation and Amortization), sufficient to cover most JWRC training expenses. No large appliances that contain greenhouse gas chlorofluorocarbons (CFC) refrigerants or cathode ray tube (CRT) monitors are included. eCyclingUSA has processes for end-of-life CFC and CRT items that require special handling that can easily be added to the JWRC-eCycling-Phoenix MRF if desired.

A 1-shift operation requires 40 tons of e-waste. While this may sound like a lot of e-waste, 40 tons equates to only two standard 40-foot shipping containers or two semi-trailer truckloads worth of feedstock. A standard shipping container and semi-trailer truck load each can carry 20 tons per load. 100 old computers and their peripherals (monitors, hard copy devices, keyboards, mice, etc.) weigh about 3 tons. 51 million PCs and 118 million peripherals are discarded in America each year. Phoenix also has railroad access for e-waste that is being exported overseas. Each railroad boxcar contains up to 140 tons of capacity.



A 2-shift (16 hours per day), 5-tons/hour, 300 day/year operation requires about 75 tons of e-waste or about 4 truckloads per day. A 2-shift operation will produce a net income of \$3,865,731 (17% EBITDA), which is more than double the average U.S. stock market real return of 6.8% in 2016. This level of profitability will cover MRF operating costs, the costs of the JWRC skills-based training and certification programs and retire a portion of investor debt.

A 3-shift (23 hours per day), 5-tons/hour, 300 day/year operation requires 110 tons of e-waste or 5.5 daily truckloads, which is a significantly less than the number of trucks servicing most landfills or big box store distribution centers each day.<sup>31</sup>

A 3-shift, 5-tons/hour operation could produce an annual net income of \$11,867,926 (37% EBITDA). This level of profitability will cover MRF operating costs, retire investor debt, pay for costs of additional JWRC skills-based training and certification programs, and provide seed capital for micro-business loans. Moreover, the JWRC can invest funds in new Arizona MRFs and collection sites; expand the existing facility to include processing of large appliances containing CFCs and monitors with CRTs; and/or start e-waste related light industrial

## 2-Shift Operation Feedstock Requirements



**75 Tons Per Day**  
(Less Than 4 Shipping Container Equivalents)

### \$ Value of e-Waste Raw Materials

*For Estimating Purposes Only*

#### 5 Tons Per Hour, 2-Shift Operation, 300 Days Per Year

Feedstock: Computers, Consumer Electronics, Small and Large Appliances

Metal/Material	% of e-Waste	\$s per Metric Ton*	\$/Ton (2204 pounds)	Total \$/Year (5 tons/hour x 16 hour/day x 300 days/year)
Iron/Steel (Fe)	20%	\$ 195	\$ 39.00	\$ 936,000
Copper (Cu)	5%	\$ 4,430	\$ 221.50	\$ 5,316,000
Aluminum (Al)	20%	\$ 1,300	\$ 260.00	\$ 6,240,000
ABS Plastics	10%	\$ 1,675	\$ 167.50	\$ 4,020,000
Other Plastics/Foam	40%	\$ 287	\$ 114.80	\$ 2,755,200
Computer Components	5%	\$ 2,466	\$ 123.31	\$ 2,959,531

Source: Jobenomics, eCyclingUSA

100%

Revenue\*\* \$ **22,226,731**

Cost of goods sold \$ **14,730,000**

Operating expenses \$ **3,631,000**

\*Scrap prices as of 3 December 2016

\*\*Does not include grants, tax incentives or tipping fees

Net Income \$ **3,865,731**

EBITDA **17%**

## 3-Shift Operation Feedstock Requirements



**110 Tons Per Day**  
(5.5 Shipping Container Equivalents)

### \$ Value of e-Waste Raw Materials

*For Estimating Purposes Only*

#### 5 Tons Per Hour, 3-Shift Operation, 300 Days Per Year

Feedstock: Computers, Consumer Electronics, Small and Large Appliances

Metal/Material	% of e-Waste	\$s per Metric Ton*	\$/Ton (2204 pounds)	Total \$/Year (5 tons/hour x 23 hour/day x 300 days/year)
Iron/Steel (Fe)	20%	\$ 195	\$ 39.00	\$ 1,345,500
Copper (Cu)	5%	\$ 4,430	\$ 221.50	\$ 7,641,750
Aluminum (Al)	20%	\$ 1,300	\$ 260.00	\$ 8,970,000
ABS Plastics	10%	\$ 1,675	\$ 167.50	\$ 5,778,750
Other Plastics/Foam	40%	\$ 287	\$ 114.80	\$ 3,960,600
Computer Components	5%	\$ 2,466	\$ 123.31	\$ 4,254,326

Source: Jobenomics, eCyclingUSA

100%

Revenue\*\* \$ **31,950,926**

Cost of goods sold \$ **15,417,000**

Operating expenses \$ **4,666,000**

\*Scrap prices as of 3 December 2016

\*\*Does not include grants, tax incentives or tipping fees

Net Income \$ **11,867,926**

EBITDA **37%**

<sup>31</sup> Walmart's 150+ distribution centers are serviced by a Walmart transportation fleet of 6,100 tractors, 61,000 trailers and more than 7,800 drivers, <http://corporate.walmart.com/our-story/our-business>

manufacturing, like model plastic products, using the raw material generated by the MRF. A combined e-waste/large appliance (3-shifts, 10-tons/hour) MRF can generate a net income per annum of over \$40 million and employ 200-300 direct and up to 3 to 5-times as many indirect/induced workers.

The JWRC-eCycling-Phoenix implementation team will be led by Mr. Steve Grueber, EVP of Operations for eCyclingUSA, and Mr. Peter Hessler, CEO of URT, eCyclingUSA's German engineering and manufacturing partner. Mr. Grueber has 35-years of experience in waste management field services to municipal, industrial and commercial institutions. Mr. Hessler designed and installed hundreds of MRFs around the world and leads an engineering team of over 150 direct employees familiar with the latest state-of-the-art MRF systems and technologies.

**Success Factors.** The success of a JWRC-eCycling-Phoenix MRF depends largely on four factors, (1) adequate supply of feedstock, (2) reasonable commodity prices, (3) competitive advantage over traditional recyclers, and (4) community support.

**If the JWRC operation is set up as a non-profit (501c3) business, eCyclingPhoenix will have a significant competitive advantage over all other recycling operations, both large and small, since it will be able to issue tax deductible donation receipts as well as promoting social benefits such as crime reduction, reducing recidivism, alleviating poverty and giving hope to distressed individuals and communities.**

(1) **Feedstock Supply.** Feedstock supply should not be a major challenge since the amount available since Phoenix has 5-times the population supporting similar European operations. If JWRC-eCycling-Phoenix is set up as a non-profit with a powerful social benefit mission, like jobs and career paths for ex-offenders and would-be-offenders, it should be able to attract much more feedstock as opposed to for-profit organizations, like Goodwill that does not reinvest profits into the community. Since JWRC is also a workforce training and job development organization, it will partner with other non-profit (churches, social-oriented institutions) and businesses as a source of tax deductible e-waste donations. State and local governments will also be a major contributor of e-waste as well as legislating tougher restrictions for exporting or landfilling e-waste. The JWRC MRF can be part of the solution to Phoenix's e-waste challenges and opportunities.

*Example of a Phoenix E-Waste Challenge.* Closed Loop Refining and Recovery, a downstream outlet for cathode ray tube glass (CRT) in Phoenix, recently closed its operation and left 50 million pounds of unleaded CRT stockpiled around Phoenix.<sup>32</sup> CRTs make up the largest portion (estimated by the EPA at 43%) of the American e-waste stream. It is estimated that significant quantities (6.9 million tons or 232 million units) of CRTs remain to be recovered from homes and businesses in the United States. The vast majority of these CRTs (85%) are projected to be collected and require management over the next decade. An additional 330,000 tons (or 12,000,000 units) are currently stockpiled. About 30% of the weight of CRT glass is toxic leaded glass. With the advent of flat screen technologies, CRT manufacturing will soon cease (the world's only remaining CRT manufacturing plant is currently in India). Without this production base, the

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<sup>32</sup> E-Scrap News, Questions linger about Closed Loop cleanup in Arizona, 1 December 2016, <http://resource-recycling.com/e-scrap/2016/12/01/questions-linger-about-closed-loop-cleanup-in-arizona/>

recycled glass-to-glass market (where old CRT glass is used to manufacture new CRTs) is also culminating. The U.S. EPA describes America's CRT challenge as potentially "catastrophic" and "dangerously constricted" from an environmental point of view.<sup>33</sup>

While not part of the startup JWRC MRF operations, eCyclingUSA offers a CRT glass recycling system that can process 50 to 60 CRTs per hour. For larger quantities, the MRF can disassemble the CRTs from their chassis to reclaim valuable metals and plastics, and then ship the CRTs to new state-of-the-art CRT processing facilities. New advanced technology CRT processing plants have the capacity to process 200 million pounds (100,000 tons) of CRT glass per year via large furnaces that operate at 2,000 degrees to smelt the glass and extract the lead.<sup>34</sup> The lead is marketable and the remaining glass can be reprocessed or used as construction aggregate.

*Example of a Phoenix E-Waste Opportunity.* UNICOR, also known as Federal Prison Industries, shut down its electronics recycling facilities at prisons in New Jersey, Kansas, Pennsylvania and Arizona, leaving a sizable gap in the U.S. e-waste recycling chain. The Tucson operation, which processed 2 million to 3 million pounds annually, abruptly shut down in July 2016 leaving a large stockpile of unprocessed e-waste and a bevy of stranded suppliers.<sup>35</sup> In discussions with UNICOR officials, Jobenomics was told that the company's prisoner-run e-waste operations were primarily focused on de-manufacturing and refurbishing old computers. Dwindling demand for refurbished computers compelled UNICOR to concentrate its prisoner work programs on making office furniture, clothing and other durable goods. UNICOR also stated that worker safety and environmental issues, mainly associated with CRT glass, prompted the closures. JWRC-eCycling-Phoenix is designed to be an ex-prisoner work program that could easily assume a large fraction of UNICOR's now defunct e-waste operations.

Americans dispose of 9,400,000 tons of e-waste per year.<sup>36</sup> As a percent of the U.S. population (2%), Arizona produces an estimated 200,000 tons of e-waste per year, not including C&D e-scrap or major commercial items like medical and industrial equipment. Over 7 million vending machines are in the process being ousted with smarter machines.<sup>37</sup> According to the EPA, only

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<sup>33</sup> EPA defines e-waste as computer and TV-related consumer electronics and does not include eCyclingUSA's definition that includes e-waste, large and small appliances, industrial electrical devices, C&D related electrical equipment and cabling, and other electric-powered products (e.g., larger medical equipment to small power tools).

<sup>34</sup> For example see NulifeGlass, Recycling CRTs from Televisions & Computer Screens, <http://www.nulifeglass.com/>

<sup>35</sup> E-Scrap News, Federal prison system halts e-scrap processing at five sites, 1 December 2016, <http://resource-recycling.com/e-scrap/2016/12/01/federal-prison-system-halts-e-scrap-processing-at-five-sites/>

<sup>36</sup> Electronic Takeback Coalition, Facts and Figures on E-Waste and Recycling, <http://www.electronicstakeback.com/wp-content/uploads/Facts-and-Figures-on-E-Waste-and-Recycling.pdf>

<sup>37</sup> The United States is in the process of transitioning from coin-operated vending machines to high-tech machines that accept credit cards and mobile payments, and feature digital screens, video cameras, and smartphone charging stations. As many as 7 million American vending machines are now obsolete and ready for e-waste end-of-life management. 56% of vending machine sales were for cold drinks, including soft drinks which are switching to computerized mixing and venting as opposed to bottles and cans to reduce transportation costs. An average vending machine has up to \$100 worth of copper and equal amount of aluminum, ferrous and plastic materials.

12.5% of U.S. e-waste is recycled and estimates that 40% of the heavy metals in U.S. landfills come from discarded electronics.<sup>38</sup>

Due to the advent of cloud computing, flat panel technology (smartphones and pads) and smart devices, U.S. e-waste volumes expected to rise significantly over the next decade as consumers dispose of dumb electronics to smarter interconnected devices. From near zero in 2010, 600 million units are produced per year today. Notwithstanding the dramatic rise in smart phone and pads, desktop computers are not going away. The number of desktop units produced per year dropped from 350 million per year in 2010 to only 270 million today and is expected to remain above 200 million per year for foreseeable future. In addition, government agencies and businesses that switch to cloud computing to eliminate or reduce their back office IT systems (servers, racks, routers, and power supplies) will significantly add volume to the e-waste stream. The dawning of the Internet-of-Things era will add substantially more items to e-waste stream as analog and mechanical devices are replaced with intelligent digital devices in order to connect to the virtual world.

- (2) **Depressed Commodity Prices.** Commodity prices have dropped approximately 40% over the last few years which have caused many manually-oriented recycling operations out of business. According to Knoema, a US-based company data analysis organization, study of World Bank data, e-waste commodity prices are rebounding from recent lows. Copper and aluminum are the two highest value commodities that will be reclaimed by the JWRC-eCycling-Phoenix MRF. Copper prices peaked in 2011 at \$8,820/metric ton, dropped to a low of \$5,070/ton in 2016 and are expected to rise to \$5,910/ton in 2019. The price for copper scrap on this JWRC Feedstock chart is conservatively priced at \$4,430/ton based on a survey of U.S. scrap buyers as of 3 December 2016. Correspondingly, aluminum prices peaked in 2011 at \$2,401/ton, dropped to a low of \$1,625/ton in 2016 and are expected to rise to \$2,000/ton in 2019. The price for aluminum scrap on this JWRC Feedstock chart is conservatively priced at \$1,300/ton.<sup>39</sup> Forecasted upswing in commodity prices will make JWRC-eCycling-Phoenix a more attractive private sector investment.
- (3) **Competitive Advantage.** JWRC-eCycling-Phoenix MRF will be tailored to quantity and types of feedstock available in Phoenix, Arizona and the Southwest Region at large. The JWRC-eCycling-Phoenix MRF will have the very latest and state-of-the-art processing technologies in operation as well as in research. eCyclingUSA's German partners are even working with the Chinese state-run urban mining centers to develop material reclamation processes that can reclaim minute amount of precious metals and trace amounts of rare elements. While the JWRC-eCycling-Phoenix MRF will initially be designed to reclaim common metals and materials, growth to more refined metal processes will be available.

Arizona is the center for common and precious metal mining. Mr. Vollmer spent a number of years on the Board of Directors of Arizona's leading uranium and copper mining exportation company, Liberty Star Uranium & Metals Corporation. Mining has a yearly \$4 billion economic impact on Arizona's economy supporting almost 43,000 direct and indirect jobs. 66% of all

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<sup>38</sup> Earth911, 20 Staggering E-Waste Facts, <http://earth911.com/eco-tech/20-e-waste-facts/>

<sup>39</sup> Knoema, Commodity Prices, Forecast 2015-2019 | Charts and Tables, [https://knoema.com/wxgcxde/commodity-prices-forecast-2015-2019-charts-and-tables?variable=Copper%20\(US%20cents%2F1b\)](https://knoema.com/wxgcxde/commodity-prices-forecast-2015-2019-charts-and-tables?variable=Copper%20(US%20cents%2F1b))

American copper comes from the output of Arizona's mines. A recent tour (conducted for Mr. Vollmer and other officials) of the Rosemount Copper Mine, an open pit copper mine in Pima County, discussed the plethora of actions needed by mining officials to mitigate environmental concerns regarding subsurface, surface and atmospheric pollution.

According to the EPA, modern MRFs provide significant environment and climate change savings: mining waste saving of 97% followed by air pollution 86%, water pollution 76%, energy 75%, and water use savings of 40% over traditional mining processes. Since the JWRC-eCycling-Phoenix MRF emits no pollutants into the ground or air, it is very environmental friendly. Handling of toxic materials is very limited (batteries and CRTs have a limited amount of toxicity) and can be handled in safe and efficient manner.

Recycled metals, such as copper, are worth up to 90% of the cost of the original material. The JWRC-eCycling-Phoenix MRF will produce the cleanest and purist fractions in the industry, which is a major competitive advantage over traditional recyclers. Computer-controlled JWRC sensors will allow the Phoenix MRF to keep track of quality and historical records of past fractions that will allow facility managers to negotiate the highest prices and loyalty from commodity buyers.

Given Arizona's history and dependence on the mining industry, it is reasonable to assume that the State would also be interested in state-of-the-art urban mining technology that has the potential to grow from a startup to a medium to large industry.

(4) **Community Support.** Government support is important to provide a reliable and consistent source of feedstock for processing operations and investment.

- *E-Waste Mandates.* In many places in Europe, where waste processing is mandated, MRFs usually operate at full capacity (3 shifts per day) using feedstock generated by as little as 300,000 people. Phoenix and Arizona's population is 1,500,000 and 6,700,000 respectively, which could mathematically support numerous advanced technology MRFs. While state and local governments cannot mandate e-waste recycling for any individual company it can regulate the amount of landfilled or exported material. Government can also prioritize where their generated e-waste should be processed. The non-profit, socially-beneficial, anti-crime and anti-poverty establishment, like the JWRC, is a defensible sole source provider. The Federal Government designed UNICOR as a sole-source collector of federal e-waste for prison industry workforce training. According to UNICOR discussion with Mr. Vollmer, UNICOR collected less than 10% of the federal e-waste. And, now they are getting out of the business.
- *Underwriting and Financial Support.* Government underwriting and financial support will be important during the 6-month startup phase and the first 2-years of operation. The JWRC plans to be self-sustaining in the 3<sup>rd</sup> year of operation. The most likely form of underwriting is tax-free municipal bonds that will provide an incentive for private sector investors. Municipal bonds are debt securities issued by states, counties and cities to fund day-to-day obligations and to finance capital projects, such as building schools. Industrial Revenue Bonds (IRBs) are another form of underwriting. IRBs are tax-exempt loans issued by state or local governments to finance a private company's expansion, construction or acquisition of manufacturing facilities and equipment. Local and state governments support these projects because they



can improve the economic well-being of a community. Financial support can take the form of government grants and contracted activities. Federal, state and local governments spend hundreds of billions of dollars annually on training, general welfare, anti-poverty and crime/gang/at-risk youth prevention programs.

- *Oversight, Supervision and Evaluation.* The JWRC needs overseers and outside supervisors to verify JWRC trustworthiness, evaluate JWRC results and build public confidence. This Oversight and Supervisory Board should consist of local citizens appointed by the Mayor, City Manager or other credible official, to oversee and evaluate the effectiveness of the JWRC due diligence process and training programs. The Board will also work with public authorities to evaluate recidivism rates and economic impact of program graduates.

Private sector support is also vital. Jobenomics works with for-profit establishments, non-profit institutions and philanthropists for sources of feedstock and funding.

- *For-Profit Establishments.* For-profit establishments include financial and non-financial establishments. In discussions with the banking industry, Jobenomics has obtained commitments for tens of millions of dollars' worth of micro-business loans based on actionable programs like the JWRC. In Baltimore, an investment group submitted in writing a framework to a major (\$50 million to \$100 million level) fund for a Jobenomics demolition/eCycling initiative, if Baltimore City government would use the 31,000 city-owned derelict homes and properties as collateral for the micro-business fund. Most major corporations expressed interest in designating the disposition of their e-waste and e-scrap to charitable and socially-worthy non-profit organizations.
- *Non-Profit Institutions.* Churches and other non-profit organizations are an excellent source of feedstock and human capital. For example, three mega-churches in North Carolina want to start "e-waste collection ministries" to gather, warehouse and distribute e-waste in the same manner as they do for clothing and food stuffs. The quid pro quo for these churches involved giving church members, and their children, priority in the Jobenomics business and job creation programs. Tipping fees were also a consideration.
- *Equity and Strategic Partners.* The JWRC-eCycling-Phoenix MRF presents an opportunity for equity and strategic partners. Equity partners would invest and share in the profits of the B-Corp with understanding that a majority of the profits would be used for enhancing the public good and public security. Strategic partners are likely to involve companies in waste management and recycling businesses.
- *Philantropists.* Based on Jobenomics discussions with a number of high-income earners, they are not averse to giving, but greatly prefer philanthropy over charity. Teaching a person to fish for a living is highly preferable to the daily giving of fish. Moreover, many high-income earners are philanthropists. Philanthropism applies for-profit capitalist objectives, such as private property and ownership, to address poverty and unrest. Many philanthropists told Mr. Vollmer that micro-business loans and equity financing could be readily obtained for the right initiatives and projects. Jobenomics has micro-business loan commitments for several of its city initiatives in the \$100 million range.

## JWRC Summary

The JWRC’s goal is to produce startup businesses and jobs for former incarcerated citizens, gang members and at-risk youth by: (1) working with community-leaders to identify high-potential business owners and employees, (2) executing a due diligence process to identify potential high quality business leaders and employees, (3) training and certifying these leaders and employees in targeted occupations, (4) creating highly repeatable and highly scalable “turn-key” small and self-employed businesses, (5) establishing sources of startup funding, recurring funding and contracts to provide a consistent source of revenue for new businesses after incorporation, and (6) providing mentoring and back-office support services to extend the life span and profitability of businesses created by the Jobenomics Workforce Reentry Center team in Phoenix, Arizona.

### Projected Net Income for All JWRC Operations: Startup through Year 4

<i>As of 3 December 2016</i>	Startup (6 Months)	Year 1	Year 2	Year 3	Year 4
<b>Operational Costs &amp; Expenses</b>					
JWRC-Training & Certification Programs	\$874,610	\$1,793,220	\$1,793,220	\$3,410,660	\$5,572,160
JWRC-eCycling-Phoenix (1-Shift Operation)			\$9,987,000		
JWRC-eCycling-Phoenix (2-Shift Operation)				\$18,361,000	
JWRC-eCycling-Phoenix (3-Shift Operation)					\$20,083,000
<b>Revenue Projections</b>					
JWRC-eCycling-Phoenix (1-Shift Operation)			\$11,113,366		
JWRC-eCycling-Phoenix (2-Shift Operation)				\$22,226,731	
JWRC-eCycling-Phoenix (3-Shift Operation)					\$31,950,926
<b>Net Income</b>					
All JWRC Operations	<b>-\$874,610</b>	<b>-\$1,793,220</b>	<b>-\$666,854</b>	<b>\$455,071</b>	<b>\$6,295,766</b>

The projected net income for all JWRC operations, from startup through year 4, indicates a net loss for the first 2½ years and profitability thereafter. During the first 2½ years public and private financial support will be needed. In year 4 and beyond, JWRC profitability should be great enough to retire all debt (including government debt if so desired), fund new and enhanced operations, and finance numerous micro-business startups and light manufacturing companies.

This JWRC-Phoenix Program Plan contains forward-looking statements. All statements contained in this Program Plan other than statements of historical fact, including statements regarding future results of operations and financial position, business strategy and plans, and objectives for future operations, are forward-looking statements that are subject to a number of risks, uncertainties and assumptions. Moreover, the JWRC will operate in a competitive and changing environment. Although it is believed that the expectations reflected in the JWRC-Phoenix Program Plan are achievable, the JWRC cannot guarantee future results, performance or achievements. However, the JWRC team can unequivocally state that social wellness is our main objective and the profits of the enterprise will be used to the maximum extent possible for future workforce programs oriented focused on the most socioeconomically challenged citizens in the Greater Phoenix community.



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