#### *Jobenomics:* The economics of job and small business creation.

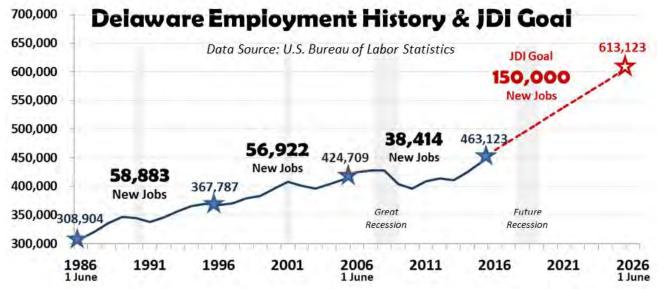


# **Business & Job Creation Initiative**

#### *Jobenomics Delaware Goal:* Create 150,000 net new jobs in Delaware within the next 10 years with emphasis on minorities, women and new workforce entrants.

**La Mar Gunn,** Delaware Lt. Governor Candidate and Dover Business Executive **Chuck Vollmer,** Jobenomics Author and Founder 23 June 2016

### Jobenomics Delaware Initiative (JDI)



#### **Jobenomics Delaware Notional Framework**

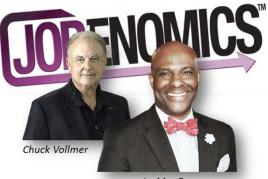
Category	New Jobs*	Percent
Filling Open Job Positions	7,500	5%
Inner-City "Blue Collar" Service Jobs	15,000	10%
Direct Care (Eldercare, Childcare, Healthcare)	22,500	15%
Digital/e-Commerce/Shared (Uber) Economy	22,500	15%
Energy Technology Revolution	15,000	10%
Demolition, Renovation, Construction	15,000	10%
Urban Mining	7,500	5%
Coastal Live/Work/Play/Retire Communities	15,000	10%
Rural, Urban Agriculture/Aquaculture	30,000	20%
* Total new direct, Indirect and Induced Jobs	150,000	100%

150,000 new jobs is over triple the current job creation rate.





### **Jobenomics Delaware Initiative (JDI)**



### Leadership

- La Mar Gunn, Candidate for Lt. Governor of Delaware and Dover Business Executive (Founder & CEO Gunn Wealth Management)
- Chuck Vollmer, Jobenomics Founder and President.
- **Develop Jobenomics Delaware Movement with active** participation of community leaders and decision-makers.

#### Goal: 150,000 net new Delaware jobs over the next decade.

- Identify hi-growth areas and trends (e.g., contingent workforce).
- Position labor force for tech-revolutions and digital economy.
- Implement Jobenomics Community-Based Business Generators across the state to mass-produce startup businesses.
- Emphasize women, minority and new workforce entrants.

#### Current status: Developing strategic plan and determining interest



#### **Presentation Outline**

**About Jobenomics** 

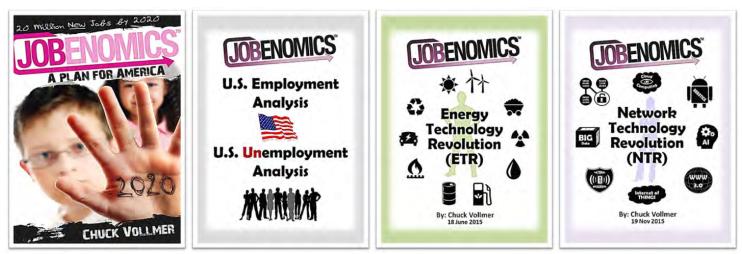
**Delaware Labor Force Analysis** 

**Jobenomics Delaware Initiative (JDI)** 

**Conclusion & Contact Information** 

#### JOBENOMICS Delaware

### Jobenomics



#### Plan for America (Book, Research, Initiatives & Blog)

- Focused on the economics of small and self-employed businesses and job creation for women, minorities, new workforce entrants and other hopefuls who want to work.
- Provides detailed plans for American business and jobs creation

#### **Bipartisan National Grassroots Movement**

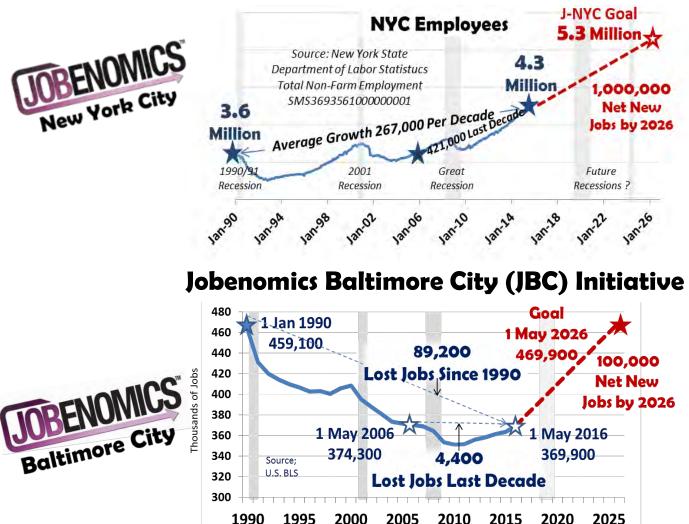
- Following of several million people
- Highly scalable business generation projects underway

#### U.S. Goal: 20 million new US private sector jobs every 10 years.



### **Similar Jobenomics Initiatives**

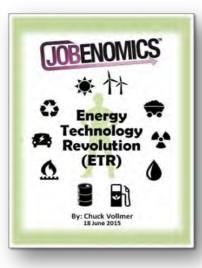
#### Jobenomics New York City (J-NYC) Initiative



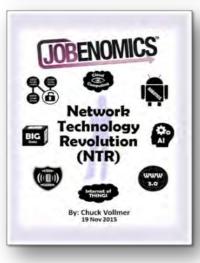
Goal: Restore and position labor forces for growth based on the unique needs and demographics of the community served.

## **Positioning For Technology Revolutions**





The Energy Technology Revolution (ETR) involves emerging energy technologies, processes and systems that will transform the global energy mix and create hundreds of millions of new jobs around the world. Communities that have an ETR strategy will claim the bulk of these jobs and can reengineer their communities to be much more energy efficient.



The **Network Technology Revolution (NTR)** consists of the next generation in network and digital technology that will transform economies and the way we live, work and play. The NTR could produce tens of millions of net new U.S. jobs and millions of small businesses. On the other hand, via automation, the NTR has the potential to obsolete tens of millions of existing jobs.

A Delaware ETR and NTR strategy is needed to maximize labor force gains and minimize labor force losses.

### **Underlying Jobenomics Principles**



# The United States approach to small business and job creation and sustainment is ad hoc—a better approach is needed.

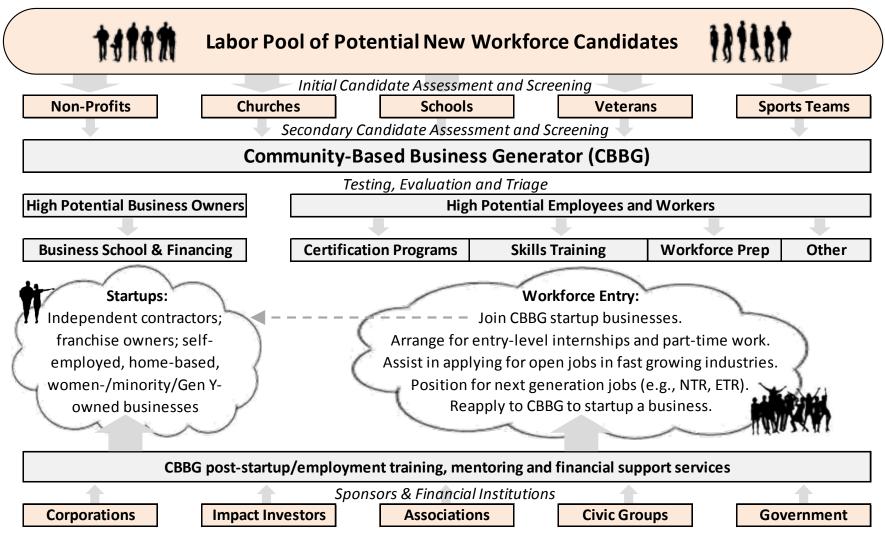
- Jobs do not create jobs. Businesses do. Small business employs 80% of all Americans and created 80% of all new jobs this decade.
- Jobenomics focuses on job creation at the base of America's economic pyramid. Today, 72% (115 million) of all U.S. wage earners earn below the median wage. 95 million more ablebodied adults voluntarily dropped out the labor force and reportedly receive no wages. The U.S. economy is not sustainable unless more people depend on workfare and less on welfare.
- Most economic development efforts are oriented to attracting businesses, incubating high-tech startups and accelerating existing high-growth companies. Jobenomics Community-Based Business Generators are designed to mass-produce startup businesses with emphasis on people who want to startup a business.

The American entrepreneurial spirit is alive and well, especially in poor communities and the younger generations (Gen Y &Z).

### **Jobenomics Business Generator Concept**



#### Jobenomics Community-Based Business Generator Concept



Goal: Mass-produce startup businesses with high-quality employees.

## **Community-Based Business Generators**



# A Jobenomics Community-Based Business Generator (JCBBG) mass-produces startups by:

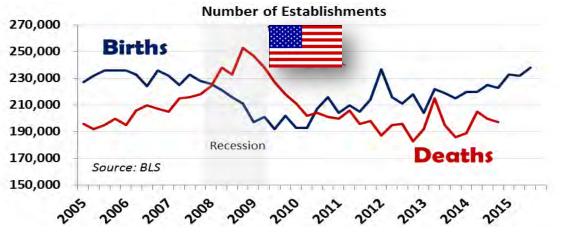
- Working with community leaders to identify high-potential business owners and employees,
- Training and certifying owners and employees in targeted occupations,
- Creating highly repeatable and highly scalable "turn-key" small and self-employed businesses,
- Establishing sources of startup funding, recurring funding and follow-on contractual work to provide a consistent source of revenue for new businesses after incorporation, and,
- Providing mentoring and support services to extend the life span and profitability of businesses created by the JCBBG as well as other local businesses that require attention as support.

Multiple JCBBGs with standard curricula should be located throughout Delaware in urban, suburban and rural communities.

### Incubators, Accelerators & Generators



- Business incubators focus high-tech, silver bullet innovations.
- Business accelerators focus on expanding existing businesses.
- Jobenomics business generators involve mass-producing small and self-employed businesses with emphasis on lower-tech businesses at the base of the U.S. economic pyramid.



The key to economic growth is to increase the number of small business births (startups) and minimize deaths (closures).

The U.S. averages 250,000 startups per quarter in an ad hoc process. The Jobenomics Community-Based Business Generator is a standardized process designed to mass-produce Delaware startups.



#### **Presentation Outline**

**About Jobenomics** 

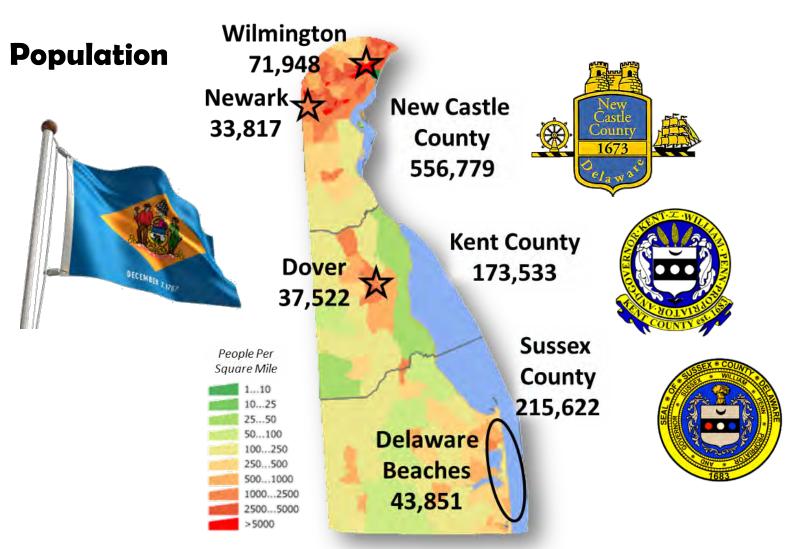
#### **Delaware Labor Force Analysis**

**Jobenomics Delaware Initiative (JDI)** 

**Conclusion & Contact Information** 

### **Delaware At A Glance**





Delaware Land Use: 37% Agriculture, 27% Forest, 23% Developed, 11% Other and 2% Federal

### **Key Regional Labor Force Statistics**



Sources: U.S. Bureau of Labor Statistics (BLS), Delaware Department of Labor, U.S. Census Bureau, April 2016	Population	Median Age	Employment (Nonfarm)	Population- Employment Ratio*	Unemploy- ment Rate
United States	321,422,019	37.7	151,004,000	47.0%	5.0%
Philadelphia-Camden-Wilmington, PA-NJ- DE-MD, Metropolitan Statistical Area	6,069,875	38.3	2,881,800	47.5%	4.9%
Wilmington, DE-MD-NJ Metro Division (Counties: New Castle DE, Cecil MD, Salem NJ)	716,763	35.5	372,633	52.0%	4.2%
Delaware	945,934	39.2	462,377	48.9%	4.0%
Sussex County, DE	215,622	46.5	95,196	44.1%	4.1%
Kent County, DE	173,533	36.8	75,525	43.5%	4.3%
New Castle County, DE	556,779	37.7	291,656	52.4%	3.8%
Wilmington, DE	71,948	35.1	33,262	46.2%	5.9%
Dover, DE	37,522	30.2	15,222	40.6%	5.3%
Newark, DE	33,817	22.8	15,936	47.1%	3.7%

Color Key: Areas Deserving Special Consideration

Jobenomics calculates Population-Employment Ratio as a percent of total population, whereas the BLS calculates its Employment-Population Ratio as a percentage of the of the civilian noninstitutional population (252,969,000) as opposed to the total U.S. population.

# Delaware generally exceeds national averages with the exception of predominantly large city and rural communities.

### Key Regional Income & Poverty Statistics



Sources: Data USA (http://datausa.io/), U.S. Census Bureau, retrieved June 2016	Median Household Income	Combined Minority Population (non-White)	Below Poverty Level	Largest Group Living In Poverty (Number and Race)	Largest Single Demographic Living In Poverty Out of 22 Age and Gender Groups (Number, Gender, Age)
United States	\$53,657	22.6%	14.8%	168,806 Whites	34,757 Females 25-34
Philadelphia-Camden-Wilmington, PA-NJ- DE-MD, Metropolitan Statistical Area	\$62,171	N/A	N/A	15,616 Whites	4,504 Females 25-34
	-				
Delaware	\$59,716	29.2%	12.5%	6,555 Whites	1,479 Females 18-24
Sussex County, DE	\$53,505	21.0%	13.9%	1,489 Whites	303 Females 25-34
Kent County, DE	\$55,169	32.2%	14.1%	1,169 Whites	259 Females 25-34
New Castle County, DE	\$64,801	34.5%	12.3%	4,531 Whites	1,421 Females 18-24
Wilmington, DE	\$38,979*	67.4%	26.1%	975 Blacks	248 Females 18-24
*Wilmington's neighborhood median in	comes range fror	n a high of \$1	66,771 (Nort	hwest) to a low of \$1	1,910 (Inner-City)
Dover, DE	\$45,660**	51.7%	19.0%	850 Blacks	193 Females 25-34
**Dover's neighborhood median incomes range from a high of \$66,107 (West) to a low of \$28,375 (Inner-City)					(Inner-City)
Newark, DE	\$53,125***	17.6%	27.2%	533 Whites	547 Females 18-24
***Newark's neighborhood median incomes range from a high of \$112,784 (North) to a low of \$12,825 (Inner-City)					

Color Key: Areas Deserving Special Consideration

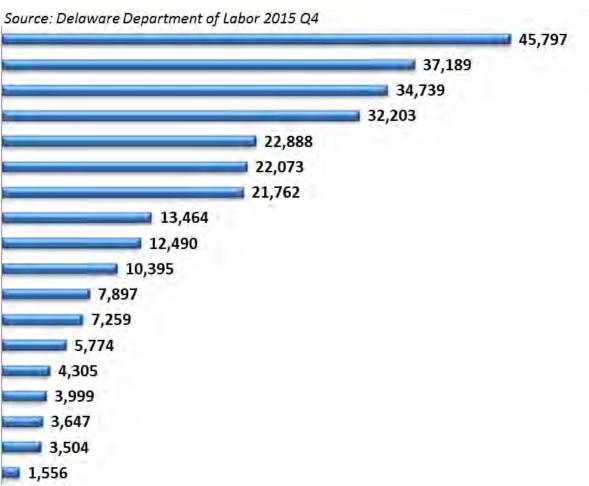
Inner-city blacks, rural whites and females are most likely to be poor. Income disparity/inequality in Delaware's major cities tends to be extreme between the richest and poorest neighborhoods.

### New Castle County Nonfarm Labor Force



Total Nonfarm Employment: 291,656. Population: 556,779 Percent of Population Employed: 52.4% versus national average of 47.0%.

Health care & social assistance Finance & insurance Government **Retail trade** Professional & technical services Accommodation & food services Admin.and waste services Construction Manufacturing **Transportation & warehousing** Wholesale trade Other services, except public... Arts, entertainment, & recreation **Educational services** Mgmt. of companies & enterprises Information Real estate & rental & leasing Utilities



While New Castle's labor force is heavy oriented to healthcare, social assistance and government jobs, it is otherwise well balanced.

#### JOBENOMICS Delaware

### **Kent County Nonfarm Labor Force**

#### Total Nonfarm Employment: 75,525. Population: 173,533 Percent of Population Employed: 43.5% versus national average of 47.0%.

Government Retail trade Health care & social assistance Accommodation & food services Manufacturing Arts, entertainment, & recreation
Health care & social assistance Accommodation & food services Manufacturing Arts, entertainment, & recreation Accommodation & food services Manufacturing 2,681
Accommodation & food services 5,441 Manufacturing 4,714 Arts, entertainment, & recreation 2,681
Manufacturing 4,714 Arts, entertainment, & recreation 2,681
Arts, entertainment, & recreation 2,681
Construction 2,628
Transportation & warehousing 🛁 2,326
Admin.and waste services 🛁 2,027
Professional & technical services 🛁 1,852
Other services, except public admin. 🔛 1,647
Finance & insurance 📁 1,155
Wholesale trade 🔛 1,035
Educational services 🙀 500
Real estate & rental & leasing 📲 456
Information # 382
Utilities   263
Mgmt. of companies & enterprises   243

Kent County's labor force is heavily government related and the working population is less than the national average. A robust small business and job creation strategy would close the gap.



### **Sussex County Nonfarm Labor Force**

#### Total Nonfarm Employment: 95,196. Population: 215,622 Percent of Population Employed: 44.1% versus national average of 47.0%.

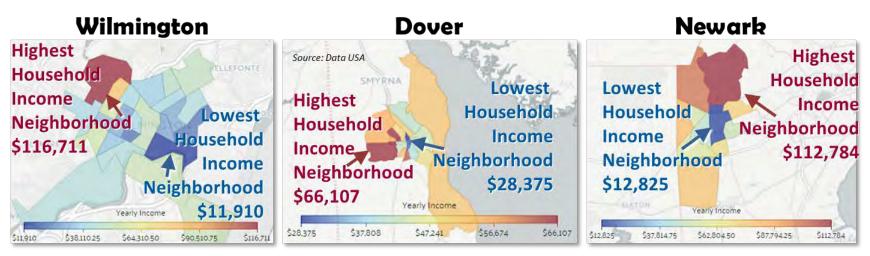
Source: Delaware Department of Labor 2015 Q4

Retail trade	12,243
Health care & social assistance	10,912
Accommodation & food services	10,035
Manufacturing	9,644
Government	8,700
Construction	4,441
Admin.and waste services	3,765
Other services, except public admin.	2,415
Professional & technical services	1,925
Finance & insurance	1,762
Wholesale trade	<b>1,706</b>
Transportation & warehousing	<b>I,457</b>
Real estate & rental & leasing	📟 1,356
Arts, entertainment, & recreation	<b>■</b> 1,063
Information	480
Utilities	I 338
Mgmt. of companies & enterprises	1 215
Educational services	1 200

While below the national employment average, Sussex County's labor force is well balanced with manufacturing and trade strongly present.

18

### Wilmington, Dover, Newark Disparities



- Richest city neighborhoods are well above the national median household income of \$53,656.
- Poorest city neighborhoods are usually characterized by high crime and incarceration rates, high welfare, poor education and skills, and high percentages of female heads-of-households.
- Richest neighborhoods are able to attract new corporate-level businesses. Poor neighborhoods are not so fortunate, making meaningful careers and jobs hard to find.

Jobenomics contends that the only solution to job creation in poor communities is with small business creation with emphasis on blue-collar, service-providing industries.

Delaware

### **Delaware Farm Labor Force**



Source: USDA, 2012 (Latest Data, Retrieved June 2016)

	Sussex	Kent	New Castle
Farms (Number & Type)	1,214	863	374
Poultry	595	222	59
Cattle	154	213	64
Corn	421	247	84
Wheat	263	180	67
Forage	421	247	84
Vegetable	141	49	32
Farm Land (Acres)	272,232	172,251	64,169
Average Farm Size (Acres)	224	200	172
Net Cash Income (Average Per Farm)	\$183,994	\$91,196	\$49,789
Value of Ag Products Sold (Yearly)	\$921,129,000	\$277,727,000	\$75,158,000
		61 274 014 000	

\$1,274,014,000

- The annual value of agricultural production is over \$1.2 billion.
- The annual aggregate (direct, indirect, and induced) economic contribution is estimated at nearly \$8 billion.
- The estimated total number of jobs supported by the agricultural industry is about 30,000 jobs (full-time, part-time and seasonal)

#### Delaware AG industry is solid and poised for significant growth.

# **Delaware Coastal Labor Force**

- The annual value of Delaware's coastal economy is \$7 billion per year that supports approximately 59,000 direct, indirect and induced jobs.
- Today, Delaware's focus is largely on seasonal vacation businesses and jobs.
- JDI will focus on developing technologically advanced live/work/play/retire communities.
  - Baby boomers are looking to retire gracefully but continue working in some capacity.
  - Gen Y Millennials and Gen Z Screenagers overwhelming want to start their own business and pursue Internet economy careers.
- While entertainment will continue to be a mainstay, most new businesses/jobs will be in the medical/healthcare, construction, real estate, hospitality and professional services industries.

# Contingent workforce and digital economy trends could double or triple employment in Delaware's coastal communities.









#### **Presentation Outline**

**About Jobenomics** 

**Delaware Labor Force Analysis** 

**Jobenomics Delaware Initiative (JDI)** 

**Conclusion & Contact Information** 

### **JDI Business/Job Creation Focus Areas**



#### Jobenomics Delaware Notional Framework

Category	New Jobs*	Percent
Filling Open Job Positions	7,500	5%
Inner-City "Blue Collar" Service Jobs	15,000	10%
Direct Care (Eldercare, Childcare, Healthcare)	22,500	15%
Digital/e-Commerce/Shared (Uber) Economy	22,500	15%
Energy Technology Revolution	15,000	10%
Demolition, Renovation, Construction	15,000	10%
Urban Mining	7,500	5%
Coastal Live/Work/Play/Retire Communities	15,000	10%
Rural, Urban Agriculture/Aquaculture	30,000	20%
* Total new direct, Indirect and Induced Jobs	150,000	100%

Jobenomics has experience in these areas. However, this framework will change as community leaders decide what areas to pursue.

### **Delaware's Rising Contingent Workforce**



#### **U.S. Labor Force Employed Workforce in 2016**

Source: GAO, BLS, NORC, Jobenomics

	Contingent Workfor Part-Time Work <35 hours/week		fillion Workers)
Standard Workers Workers	Self-Employed Workers: Independent Contractors:	3% 13%	Full-Time Standard Workforce: 60%
DECEMBER 7, 1787	Core Contingent Workers: Agency & Direct Hire Temps, On-Call and Day Laborers, Contract Company Workers	8%	(90 Million Workers)

By 2030, contingent workforce will be the dominant (over 50%) form of labor in the United States. JDI will help prepare and maximize Delaware's labor force for this transition.

#### Contingent Work Is Going Mainstream Most Desirable Companies With Flexible Jobs



Source: Flexjobs Database

Google	McKinsey & Company	Pfizer	Electronic Arts – EA
Apple	General Electric – GE	Unilever	L-3 Communications
Facebook	Johnson & Johnson	Fox	NBC Universal
Microsoft	Netflix	Sephora	Forbes Media
Nike	Bloomberg	Lockheed Martin	Hilton Worldwide
Walt Disney Company	Twitter	Samsung Electronics	Whole Foods Market
Tesla Motors	Yahoo	Boeing	IBM
Procter & Gamble	Under Armour	The New York Times	Oracle
Starbucks	Adobe	Warner Bros.	Exxon Mobil
Shell	Salesforce	Coca-Cola	Airbnb
Amazon	ESPN	Goldman Sachs	Sony Pictures

- Via modern technology, jobs will increasingly be dissected into discrete tasks and performed by contingency workers.
- Collaborative management tools will further create "contextual" contingent work environments that rapidly form, perform, and then reform to address subsequent tasks.
- Websites like Amazon Turk, Task Rabbit, Flex Jobs, Fiverr, and Micro Workers make "on-demand" contingent tasks easier to find.

#### JDI will develop a Delaware Contingent Workforce Center.

## **Filling Open Job Positions**



- There are currently 6 million open U.S. jobs that are vacant largely due to a gap in workforce skills and work habits.
- Employers are looking to automation to fill gaps and reduce costs.
- Total: 6,076,000 Jobs Service-Providing Industries Accommodation Health Retail & Wholesale & Food Services Care Trade Government **Goods-Producing** State/Local Industries 896 1.092 788 412 239 200 102 109 16 Education & Health, Information Monute Tofessional & Business Hellocal Federal

Nation-Wide Job Openings By Industry

- JDI will match open Delaware positions, start independent contractor businesses and develop standard and contingent workforce skills.
- JCBBGs will focus on filling open Delaware, Greater Philadelphia MSA and DELMARVA jobs and diversifying the labor force in the principal cities of Wilmington, Dover and Newark and rural areas.

#### Goal: 7,500 new jobs.



### Inner-City "Blue Collar" Service Jobs

- JDI will emphasize Job Skill Zone 1 & 2 jobs that takes weeks or months to get candidates into the workforce as soon as possible.
- Job Skill Zones are occupations that are similar in education, experience and on-the-job-training. Financially-depressed areas usually produce lower job skill zone candidates.

Skill Level	Zone 1	Zone 2	Zone 3	Zone 4 & 5
Preparation	Little or none	Some	Medium	Considerable
Education	None, GED, High School	GED, High School	gh School Vocational school, on- the-job experience, or associate degree	
Experience	Little or no previous skill or knowledge	Some previous work- related skill or knowledge	Previous work-related skill or knowledge	needed. The J- CBBG will fast track these individuals
Job Training	Few days to a few months	One to two years on- the-job experience or apprenticeships	Several years of work- related experience, on- the-job training, and/or vocational training	who want to start a business.
Examples	Taxi drivers, waiters, clerks	Electricians, food service managers, assistants	Accountants, sales managers, database administrators, teachers	Supervisors, managers, owners

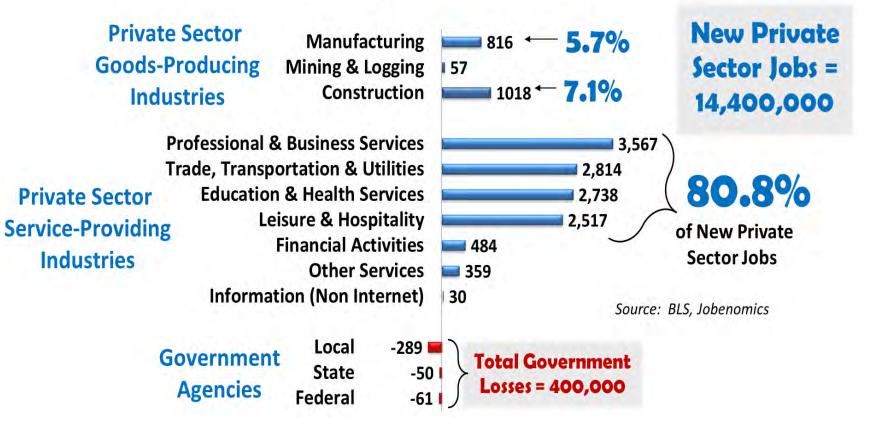
#### Rapid on-boarding is needed to attract low skill workers.

## Inner-City Service Jobs (Cont.)



Thousands of Jobs (000s)

1 January 2010 to 1 April 2016



 JDI will match high growth U.S. employment areas to Delawarean needs and opportunities with emphasis on Trade, Transportation, Utilities, Healthcare, Leisure, Construction and Manufacturing.

#### Goal: 15,000 new jobs.

### **Direct Care**



- A Direct Care Center helps provide in-home care by home-based small business and self-employed individuals via a communitybased, direct-care information and call center.
- Nationwide, Direct Care-related occupations are projected to increase by 2.3 million new jobs by 2024, due to the need for inhome eldercare, childcare, healthcare and other caring services.
  - By 2020 Baby Boomers are projected to need 20 million assisted or managed care beds. Today, only 3 million beds are available. Disabled elderly would rather retire gracefully at home.
  - Childcare is a major limiting factor for women workers. Annual costs per year of Delaware childcare ranges from \$8,928 for infant care to \$6,447 for school-age care. Creating in-home childcare businesses will free other women to pursue careers.
- The main goal of Delaware Direct Care Centers would be identify, certify individuals that could operate as self-employed businesses or become employees of larger organizations.

#### Goal: 22,500 new jobs.

## **Direct Care Related Occupation Growth**

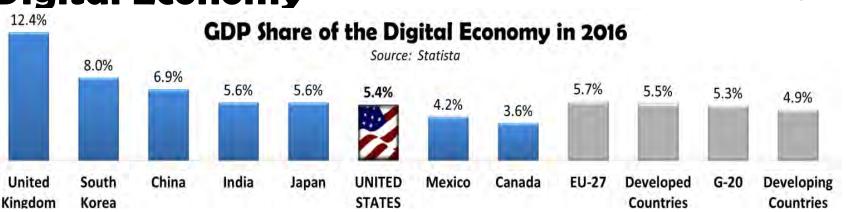


College Degree	Occupation	Number of Jobs In 2014	Number of New Direct Care Jobs By 2024	Growt h Rate	2014 Median Pay
No	Personal care aides	1,768,400	458,100	26%	\$20,440
Yes	Registered nurses	2,751,000	439,300	16%	\$66,640
No	Home health aides	913,500	348,400	38%	\$21,380
No	Nursing assistants	1,545,200	267,800	17%	\$25,090
No	Medical assistants	591,300	138,900	23%	\$29,960
No	Medical secretaries	3,976,800	118,800	3%	\$35,970
No	Licensed practical and licensed vocational nurses	719,900	117,300	16%	\$42,490
Yes	Physicians and surgeons	708,300	99,300	14%	\$187,200
Yes	Physical therapists	210,900	71,800	34%	\$82,390
No	Childcare workers	1,260,600	69,300	5%	\$19,730
No	Dental assistants	318,800	58,600	18%	\$35,390
No	Emergency medical technicians and paramedics	241,200	58,500	24%	\$31,700
No	Medical and health services managers	333,000	56,300	17%	\$92,810
			2,302,400		

The JCBBGs will identify, train and certify individuals and startup businesses to maximize these Direct Care-related occupations.

The fast growing U.S. occupations involve Direct Care-related services.

### **Digital Economy**



- The U.S. economy 5.4% digital and growing 20% per year.
- The emerging Digital Economy, also known as the Internet Economy or New Economy, is transforming the planet via ecommerce, e-retailing, e-business and the sharing (Uber) economy.
- Delaware needs to develop their digital infrastructure, training and business development processes to effectively engage in the emerging digital economy and support their growing contingent workers who are dependent on web-based, task-oriented work.
- The Digital Economy will favor an independent, home-based, selfemployed, flexible and task-oriented contingent workforce over the traditional corporate full-time workforce.

#### Goal: 22,500 new jobs.

Delaware

# **Digital Economy & The NTR**



**Network Technology Revolution (NTR):** 

#### Is a Perfect Storm of Network Technologies, Processes and Systems including:

Big Data, Cloud Computing, Semantic Webs, Augmented and Virtual Reality, Mobile Computing, Ubiquitous Computing, 5G Broadband, Spatial Sensing, Robotics, Mechatronics, Nanobotics, Telepresence, Geo-Location, Near-Field Communications, Machine Learning, Quantum Computing, Deep Learning, Memetics, Biometrics, Blockchains, Multifactor Credentialing, Emotive Surveillance, Identity Management, Anonymity Networks, Ambient Intelligence, Artificial Intelligence and Intelligent Agents

#### Will Revolutionize Economies, Labor Forces and Nations Via the:

Digital Economy, Internet Economy, Apps Economy, Gig Economy, Uber Economy, On Demand/Sharing Economy, e-Commerce, m-Commerce, e-Business, m-Health, Third Industrial Revolution (Manufacturing), and/or the Internet of Things (IoT).

JDI will focus on maximizing NTR jobs by helping Delaware's "digital natives" (Millennials and Screenagers) to thrive in the emerging digital economy and to engineer the types of new jobs and careers that will redefine the Delaware economy for the future.

# **Digital Transformation**



JOBENOMICS"			day's Economy 21st Century
		Traditional Economy	Digital Economy
	Technology	Military Technology Revolution (MTR)	Network Technology Revolution (NTR)
	Revolutions	Information Technology Revolution (ITR)	Energy Technology Revolution (ETR)

	Basauraas	Industry Emphasis	E-Commerce Emphasis	
Economic & Business Drivers	Resources	Human	Human-Machine-Intelligent Agents	
	Connectivity	Stationary Analog	Mobile Digital	
		Human-to-Human	Human/Machine-to-Machine	
	Energy -	Centralized	Point of Use	
		Fossile Fuels	Renewables	

Labor Fores	Large Corporations	Micro Businesses
Labor Force	Full-Time Workers	Contingent Workers

- The Digital Economy will transform Delaware's economy and labor force more profoundly than most people envision.
- Most Digital Economy and NTR experts project the loss of up to 50% of all American jobs by 2030 via automation.

# JDI will focus on maximizing Delaware's NTR jobs gains and minimizing NTR job losses through automation.

### **Energy Technology Revolution**



#### The Energy Technology Revolution (ETR)

The ETR Consists of Emerging Energy Technologies, Processes and Systems Including: Renewable Energy Sources (Biomass/Biofuels/Wood, Hydroelectric & Hydrokinetic, Wind, Solar, Geothermal, Municipal Waste), Alternative Fuels, Advanced Batteries, Advanced Vehicles (Electric Vehicles, Fuel Cells, Hydrogen Vehicles), Nuclear (Small Modular Reactors, Fusion Reactors), Coal, Conventional and Unconventional Oil & Gas (Petroleum & Other Fluids, Natural Gas, LNG & GTL, Methane Hydrates), Exotics and Yet Unknown Technologies as well as new energy services including Energy Efficiency. Energy Conservation, Energy-as-a-Service (EaaS), Energy Assurance and Security and Energy Disaster Preparedness and Recovery Services.

The ETR Will Revolutionize Labor Forces, Economies And Nations Via The: Renewable energy sources, micro-grids, net-zero communities, advanced vehicles, alternative fuels, energy storage devices and smart networks will allow energy generation to occur closer to the consumer. Generating power close to the point-of-consumption eliminates cost, complexity, interdependencies and inefficiencies associated with transmission and distribution over 3 million miles of power lines in America.

JDI will use the 160 page Jobenomics ETR plan to develop a comprehensive Delaware Energy Technology Revolution plan.

Goal: 15,000 new jobs.

# **Demolition, Reconstruction**

The City of Wilmington has listed over 1,500 derelict vacant properties that need to be demolished or renovated.

(see http://www.wilmingtonde.gov/residents/reportaproperty)

- Demolition and renovation of derelict buildings could lead to thousands of new jobs and businesses if properly planned. JDI has identified a dozen certification programs for Job Zone 1 workers.
- Development of a skilled construction workforce and independent local small construction businesses will be useful for:
  - Other ongoing regional demolition, renovation and construction projects
  - JDI initiatives such as the Delaware Live/Work/Play/Retire communities

#### Goal: 15,000 new jobs.



Demolish

Renovate



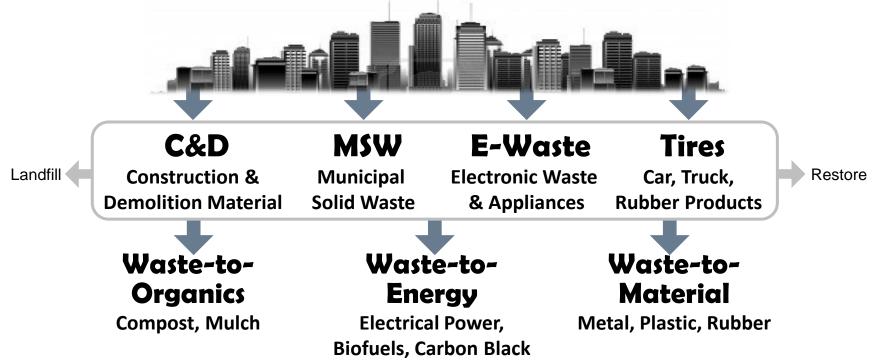
**New Construction** 



### **Urban Mining**



# Urban Mining Process: Reclamation of valuable raw materials and metals from urban waste streams.



- Urban Mining goal: monetize urban waste streams in order to produce revenue, businesses and jobs.
- Jobenomics established eCyclingUSA to monetize high-value waste streams for electronic and appliance materials reclamation.

#### Goal: 7,500 new jobs.

### eCyclingUSA Plants

### Two Line 10 Ton/Hour Plant:

(Refrigeration & Electronics Separate Lines)

- Equipment ≈ \$20 Million
- 40,000 square foot facility
- 10 to 15 acres
- 100-200 direct employees
- 500-1000 indirect/induced jobs
- Profitability ≈ \$50 million/year

### Electronics Only 3 Ton/Hour Plant:

- Equipment ≈ \$5 Million
- 8,000 square foot facility
- 1 to 2 acres
- 20-50 direct employees
- 100-250 indirect/induced jobs
- Profitability ≈ \$10 million/year

eCyclingUSA can implement a turnkey plant within 12 months and arrange financing for up to 70% of equipment costs.









### Coastal Live/Work/Play/Retire Communities

• Live Delaware is a proposed JDI effort to promote Delaware's coastal living for Millennials—the largest U.S. demographic with 83 million people—who are trending to live/work/play communities replete with modern digital infrastructure and residential, entertainment and recreational amenities.



- Retire-Delaware is a proposed JDI effort to promote Delaware's coastal living for Baby Boomers, the second largest demographic with 78 million people who are entering retirement at a rate of 10,000 per day. Baby Boomers are the wealthiest demographic who are looking for ways to retire gracefully, be engaged in the free lance economy, and invest or transfer their massive life savings worth approximately \$30 trillion.
- JDI will work with the leading and best-selling master planned community developers (such as the highly successful Florida Villages) to create Delaware Live/Work/Play/Retire concept.

#### Goal: 15,000 new jobs.

# Rural, Urban Agriculture/Aquaculture



#### Increase from 30,000 jobs to 60,000 jobs over the next decade by:

- Increasing market value of current AG production via emerging advanced digital and network technologies, processes and systems.
- Increasing AG-manufacturing by developing local processing and manufacturing of AG, forestry and urban mining products.
- Mass-producing rural, suburban and urban micro-AG businesses associated with smart farms, hydroponics, vertical farming, fish farms, aquaculture, urban agriculture, agriculture NTR services and enhanced product-to-consumer delivery services.



Goal: 30,000 new jobs.

# **Delaware Rural Agricultural Baseline**







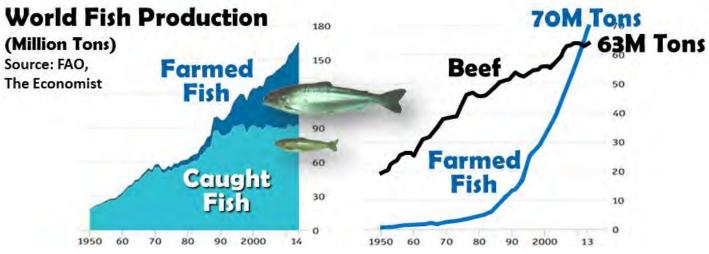


Source: USDA, Census State Profile for Delaware, 2012	Quantity		U.S. Rank					
MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD								
Total value of agricultural products sold	\$	1,274,014,000	39					
Value of crops, including nursery and greenhouse	\$	429,039,000	42					
Value of livestock, poultry, and their products	\$	844,975,000	39					
VALUE OF SALES BY COMMODITY GROUP								
Poultry and eggs	\$	811,301,000	19					
Grains, oilseeds, dry beans and dry peas	\$	345,316,000	34					
Vegetables, melons, potatoes and sweet potatoes	\$	60,953,000	32					
Nursery, greenhouse, floriculture and sod	\$	16,333,000	46					
Milk from cows	\$	16,593,000	47					
Cattle and calves	\$	9,489,000	46					
Horses, hogs, pigs, sheep and goats	\$	6,498,000	46-50					
Aquaculture		Negliable	50					
TOP CROP ITEMS (Acres)								
Corn for grain		178,032	30					
Soybeans for beans		167,672	27					
Wheat for grain, all		79,658	37					
Winter wheat for grain		79,658	35					
Vegetables harvested, all		40,684	20					
TOP LIVESTOCK INVENTORY ITEMS (Number)								
Broilers and other meat-type chickens		43,206,514	11					
Cattle, calves, horses and ponies		24,382	47-48					

#### 3% of Delaware's Population, 13% of GDP, 37% of Land Use

# New AG Industries: Aquaculture Example

- Delaware ranks dead last in aquaculture of 50 states in the USA.
- Aquaculture involves growing aquatic animals or plants for food.
- Modern aquaculture is a booming high-tech industry that is creating new, larger and more bountiful sources of food.



- Farmed fish consumption now exceeds beef consumption.
- Fresh fish commands almost twice the price of frozen fish and is cheaper to produce locally and deliver daily.

Delaware is ideally suited for aquaculture: fresh and salt water access, centrally located in the largest megaregion in the Western Hemisphere, and a highly-qualified food production labor force.

Delawa



# **Sources Of Funding & Support**

#### Startup Capital & Support

- Corporate sponsorship
- Community volunteerism and in-kind support (e.g., facilities)
- Micro-business loans
- Government bonds and grants
- Special programs (e.g., HUD 3 Funding)
- Philanthrocapitalism and social entrepreneurs
- Debt financing and equity investment

### Sustaining Capital & Support

- Corporate hiring and subcontracting
- New business hiring and profitability
- Self-employed and contingent workforce success
- Urban mining profit sharing
- Mezzanine financing

### Funding is available if the JDI plan is viable and community supported.



#### **Presentation Outline**

**About Jobenomics** 

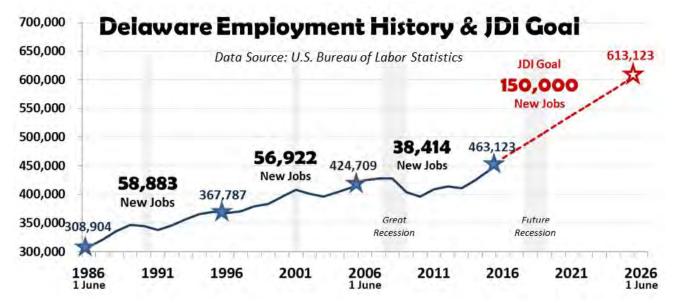
**Delaware Labor Force Analysis** 

**Jobenomics Delaware Initiative (JDI)** 

**Conclusion & Contact Information** 



### **Conclusion: Achievable Goal**

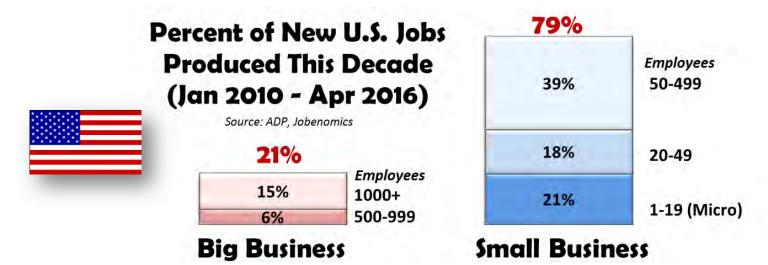


- Over the last decade, Delaware job growth has been 0.9% per year, adding an average net or 3,841 new jobs per year.
- The JDI plans to increase job creation by over 3.2% per year, adding 15,000 jobs per year in urban and rural areas with emphasis on small business creation for the demographics most in need.
- JDI will also prepare the Delaware labor force for transformative trends like contingent work, the digital economy, and the network and energy technology revolutions.

#### JDI's 2026 goal is achievable only with community support.



### **Small Business: Engine Of All Economies**



- U.S. small businesses employ more than 5 times as many American workers than large corporations. U.S. micro and selfemployed businesses (less than 19 employees) employ 69% more workers than large corporations (31.0 versus 18.3 million).
- 50% of all small business startups last five years and 30% remain in business over ten years. In addition, small business growth has outperformed medium and large businesses during the recovery from the Great Recession.
  - JDI will maximize small business creation that will provide the basis for a significant number of new Delawarean jobs.



### **Contact Information**

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