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Brian Sandoval
Governor

James Dzurenda
Director

State of Nevada Department of Corrections

DATE: November 9, 2017
TO: Committee on Industrial Programs
FROM: James E. Dzurenda, Director
SUBJECT: Impact studies for new industries

Silver State Industries (SSI) would like to partner with three companies that desire to use offender labor for their operations. We are presenting Erickson Framing NV, LLC, Terra Firma Organics, Inc., and Sewing Collection Inc. for your consideration.

Per NRS 209.459 and 209.461, the Director of the Department of Corrections is required to obtain a detailed written analysis on the estimated impact of the contract on private industry in Nevada. As required, SSI has reached out to the Department of Employment, Training and Rehabilitation (DETR), the Department of Business and Industry (DBI), the Governor's Office on Economic Development (GOED), and Representatives of organized labor in this state.

The written analysis must include, without limitation:

1. The number of private companies in this State currently providing the types of products and services offered in the proposed contract.
2. The number of residents of this State currently employed by such private companies.
3. The number of offenders that would be employed under the contract.
4. The skills that the offenders would acquire under the contract.

The Department of Business and Industry was not able to contribute any information and referred us to DETR. Organized labor stated that they do not have any issues with the three companies. Attached are copies of both e-mails. DETR and the Governor's Office on Economic Development provided the information below. Also included are the actual reports from DETR and GOED.

Based on NDOC's analysis, it appears that these proposed partners will make significant contributions to the state and to the economy. These companies will create more valuable offender job training, assist NDOC with room and board as deductions are taken out of offender's pay, more contributions will be made to the Victim of Crime fund and SSI's Capital Improvement fund, and SSI's financial position will be enhanced. GOED has reported that these companies will also make valuable contributions to the economy as illustrated below. NDOC is making the recommendation that all three companies be approved.

Erickson Framing NV, LLC is in the business of fabrication and assembly of wooden trusses, wall panels, doors and trims for the Nevada residential housing market. They would like to start with 12 to 14 offenders working in Reno. Erickson determined that the workers would fall under Team Assemblers. The offenders would learn construction skills, customer service, interpersonal skills, oral communication, diversity, a work ethic, responsibility, dependability, teamwork, strategic thinking, motivation, planning/organizing, professionalism, the importance of quality and quantity, safety and security, adaptability, initiative, etc.

DETR provided employment and wage estimates for Erickson Framing for workers based in Washoe County along with data on team assemblers. Team assemblers work as part of a team having responsibility for assembling an entire product or component in the assembly process and rotate through all or most of the various fabrications.

DETR provided data that showed a total of 4,740 individuals are employed as assemblers in Nevada. Their mean hourly wage is \$13.65. The 10th percentile wage is \$9.11 while the 90th percentile wage is \$20.97 per hour.

The Governor's Office on Economic Development determined that the effect in the state by adding 14 jobs to Truss Manufacturing is a \$684,185 initial effect, a \$183,831 direct effect, a \$38,688 indirect effect, and a \$173,279 induced effect with a \$1,079,983 change in earnings to the state as a whole, 21 change in jobs, and \$116,561 change in taxes on production and imports. The direct effect is three jobs, the indirect effect is one job and the induced effect is three jobs. The effect on taxes on production and imports is \$53,069 locally in Washoe County, \$46,038 for the state, and \$17,454 federally. Scenario results for industries are as follows: The economy would add fifteen additional jobs in manufacturing, one wholesale trade job, one transportation and warehousing job, one professional, scientific, and technical services job, one health care and social assistance job, one other services job, one management job, one business and financial operations job, one architecture and engineering job, one sales and related occupations job, two office and administrative support jobs, one construction and extraction job, one installation, maintenance, and repair job, eight production jobs, and three transportation and material moving jobs.

Terra Firma Organics Inc. is in the business of turning organic waste such as trees, shrubs, lawn clippings, etc. into compost. They would like to start with 10 to 12 offenders at the Prison Ranch in Carson City. The offenders would be considered Recycling and Reclamation Workers. The workers would learn about soil quality, the composting process, equipment operation, green waste processing, customer service, interpersonal skills, oral communication, diversity, a work ethic, responsibility, dependability, teamwork, strategic thinking, motivation, adaptability, initiative, planning/organizing, professionalism, the importance of quality and quantity, safety and security, adaptability, initiative, etc.

Terra Firma Organics Inc. data is based on workers in Carson City. Terra Firma workers were considered Production Workers, All Other by DETR. This classification includes all production workers not included separately. This classification includes recycling and reclamation workers in Nevada.

DETR provided data that a total of 630 individuals work in Nevada as Production Workers, All Other. The mean hourly wage is \$16.40 per hour. The 10th percentile is \$9.37 per hour while the 90th percentile is \$25.17 per hour.

The Governor's Office on Economic Development determined that adding ten jobs to fertilizer manufacturing would result in an initial boost to the economy of \$695,427, an \$183,192 direct effect, a \$29,551 indirect effect, and a \$129,148 induced effect. This also would result in a \$1,037,319 change in earnings, 16 additional jobs, and a \$237,388 change in taxes on production and imports. The effect on

jobs would be ten initially, three direct, one indirect, and three induced. The projected effect on taxes on production and imports would be a \$109,660 boost to the economy locally, \$94,744 for the state and \$32,984 federally.

Scenario results illustrated that manufacturing would add ten jobs, while office and administrative support would add two jobs, production three jobs, transportation and material moving two jobs. One job would be added to each of the following occupations; wholesale trade; professional, scientific, and technical; health care and social assistance; management, business and financial operations; architecture and engineering; sales and related occupations; installation, maintenance, and repair; and unclassified occupations.

Sewing Collection Inc. (SCI) is in the business of recycling clothes hangers. They pick up used plastic clothes hangers from many retail stores such as Dillard's, Sears, and Macy's. They would have offenders sort down the hangers by size and type and then re-box them. They would like to start with 12 inmates at High Desert State Prison who would learn customer service, interpersonal skills, oral communication, diversity, a work ethic, responsibility, dependability, teamwork, strategic thinking, motivation, planning/organizing, professionalism, the importance of quality and quantity, safety and security, adaptability, initiative, etc.

SCI data is based on Clark County statistics. Their workers will fall under office clerk, general; production workers, all other; and helpers-production workers. Office clerks perform various office duties such as bookkeeping, typing, word processing, stenography, office machines operation, and filing. Production workers, as mentioned for Terra Firma, include all production workers not included separately. It includes recycling and reclamation workers. Helpers-production workers perform duties that require less skill than production workers. Duties include supplying or holding materials or tools, and cleaning work areas and equipment.

DETR provided data that industry firms in Nevada have a total of 27,320 office clerks, 630 production workers, and 1,280 helpers-production workers. The mean hourly wage for office clerks is \$17.16 per hour, the 10th percentile is \$10.08 per hour, and the 90th percentile is \$25.33 per hour. Production workers have a mean wage of \$16.40 per hour. The 10th percentile is \$9.37 compared to the 90th percentile at \$25.17 per hour. Helpers-Production workers have a mean wage of \$12.49 per hour. The 10th percentile is \$8.59 per hour while the 90th percentile is \$18.20 hourly.

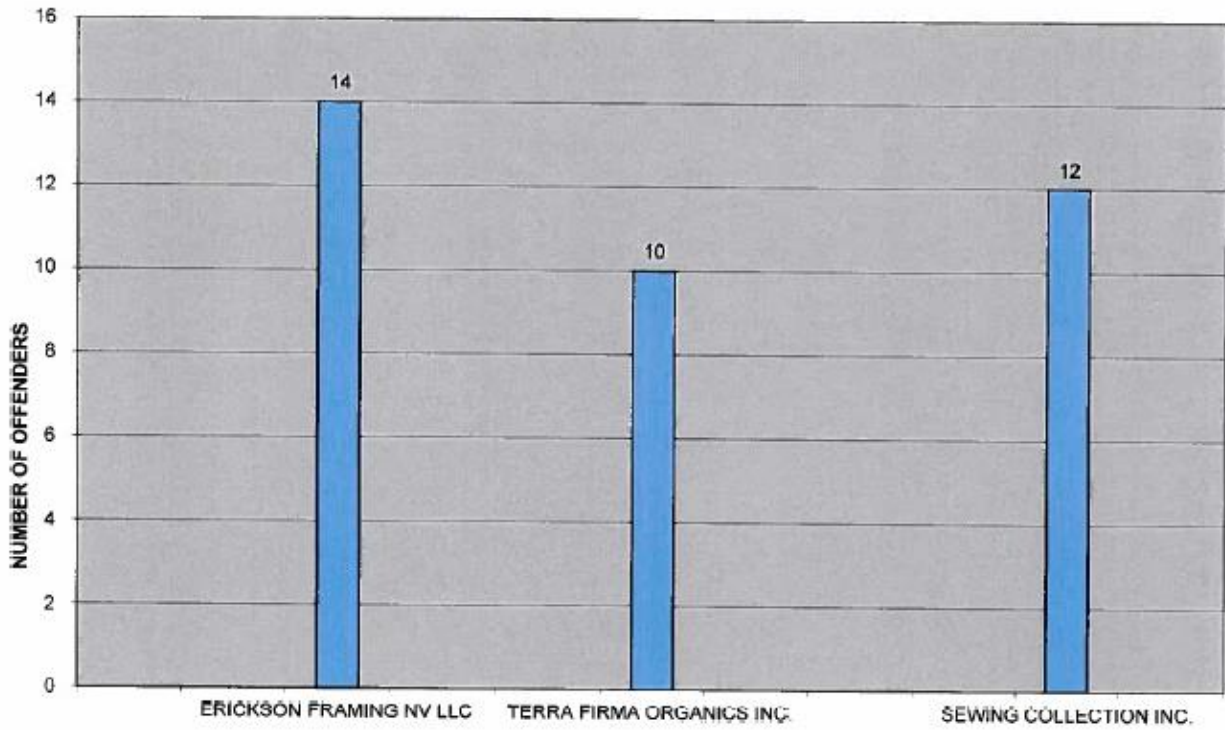
The Governor's Office on Economic Development classified SCI as a recyclable material merchant wholesaler. By adding 12 jobs, the economy would benefit initially by \$395,466, directly by \$68,601, indirectly by \$14,577 and induced by \$200,016. The changes in earnings totals \$678,660 and changes in taxes on production and imports totals \$211,494. The effect on jobs would be 12 initially, 1 direct, none indirectly, and 4 induced. The effect on taxes on production and imports may be \$97,425 locally, \$84,071 for the state, and \$29,998 federally.

The Governor's Office on Economic Development's scenario results illustrated that the resulting positive change on wholesale trade jobs would be 12 sales and related occupations, 3 office and administrative support, 3 transportation and 5 material moving and one each for retail trade; health care and social assistance; government; management, business and financial operations, installation, maintenance, and repair; and finally production occupations.

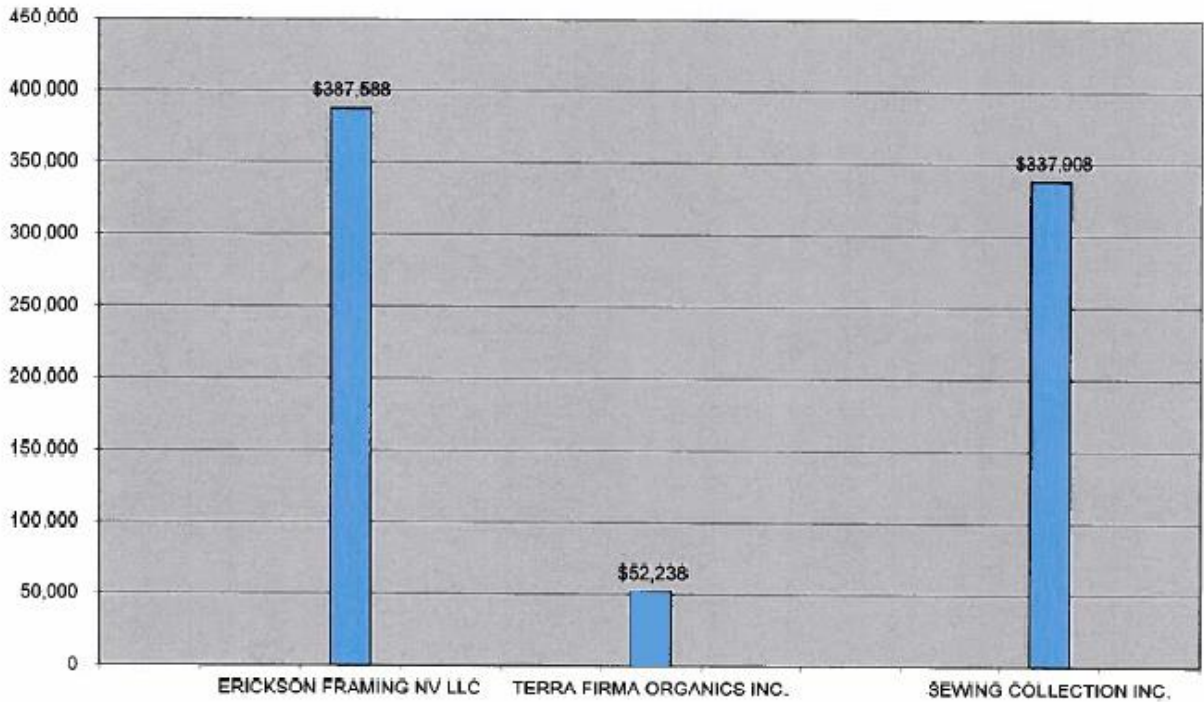
It appears that the state would greatly benefit from these three new programs. Please approve all three companies to partner with SSI.

Thank you for your consideration.

PROPOSED NUMBER OF OFFENDERS



PROPOSED ANNUAL CONTRACT DOLLAR AMOUNTS



Erickson Framing impact studies from Economic Development

Occupations for Erickson Framing NV, LLC
Employment and Wage Estimates for Nevada, May 2016

Industry 238131 Residential Framing Contractors
Firms in NV 62 Employment 3754

SOC	Title	Total Employment	Mean Hourly Wage	Hourly Wage				
				10th Percentile	20th Percentile	50th Percentile (Median)	75th Percentile	90th Percentile
47-2031	Carpenters	9,940	\$23.48	\$13.06	\$16.17	\$21.57	\$29.57	\$38.37
47-2061	Construction Laborers	8,730	\$18.90	\$11.61	\$13.63	\$17.15	\$23.74	\$29.51
47-3012	Carpenters - Helpers	330	\$13.87	\$10.04	\$11.01	\$13.08	\$15.65	\$18.63
51-2092	Team Assemblers	4,740	\$13.65	\$9.11	\$10.39	\$12.30	\$15.07	\$20.97
51-7041	Sawing Machine Setters, Operators, and Tenders, Wood Woodworking Machine Setters, Operators, and Tenders,	60	\$13.78	\$10.49	\$11.93	\$13.36	\$14.84	\$18.29
51-7042	Except Sawing	140	100	N/A	N/A	N/A	N/A	N/A

Occupational Definitions from O*NET

Carpenters (47-2031)

Construct, erect, install, or repair structures and fixtures made of wood, such as concrete forms; building frameworks, including partitions, joists, studding, and rafters; and wood stairways, window and door frames, and hardwood floors. May also install cabinets, siding, drywall and batt or roll insulation. Includes brattice builders who build doors or brattices (ventilation walls or partitions) in underground passageways.

Construction Laborers (47-2061)

Perform tasks involving physical labor at construction sites. May operate hand and power tools of all types: air hammers, earth tampers, cement mixers, small mechanical hoists, surveying and measuring equipment, and a variety of other equipment and instruments. May clean and prepare sites, dig trenches, set braces to support the sides of excavations, erect scaffolding, and clean up rubble, debris and other waste materials. May assist other craft workers.

Carpenters - Helpers (47-3012)

Help carpenters by performing duties requiring less skill. Duties include using, supplying or holding materials or tools, and cleaning work area and equipment.

Team Assemblers (51-2092)

Work as part of a team having responsibility for assembling an entire product or component of a product. Team assemblers can perform all tasks conducted by the team in the assembly process and rotate through all or most of them rather than being assigned to a specific task on a permanent basis. May participate in making management decisions affecting the work. Includes team leaders who work as part of the team.

Sawing Machine Setters, Operators, and Tenders, Wood (51-7041)

Set up, operate, or tend wood sawing machines. May operate CNC equipment. Includes lead sawyers.

Woodworking Machine Setters, Operators, and Tenders, Except Sawing (51-7042)

Set up, operate, or tend woodworking machines, such as drill presses, lathes, shapers, routers, sanders, planers, and wood nailing machines. May operate CNC equipment.

Detailed descriptions of the skills required for these occupations can be found at <https://www.onetonline.org>

Parameters

Regions

Code	Description
32031	Washoe County, NV

Industry Scenario

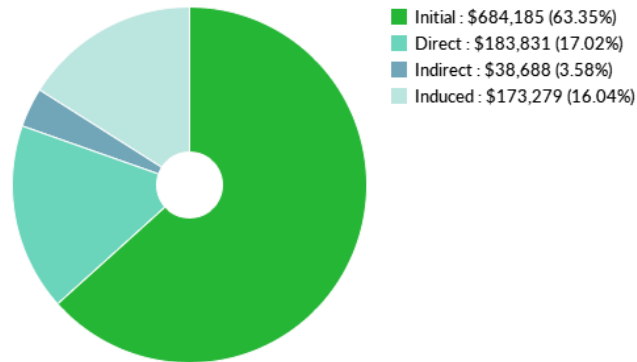
Code	Description	Change Type	Change Value
321214	Truss Manufacturing	Jobs	14

Input-Output Year 2016 Changes to Truss Manufacturing

\$1,079,983 Change in Earnings 1.58 Multiplier	21 Change in Jobs 1.53 Multiplier	\$116,561 Change in Taxes on Production and Imports (TPI)
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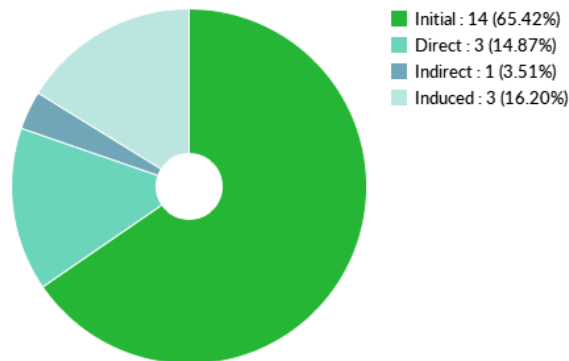
Effect on earnings from adding 14 jobs to Truss Manufacturing

\$684,185 Initial 1.00 Multiplier	\$183,831 Direct 0.27 Multiplier	\$38,688 Indirect 0.06 Multiplier	\$173,279 Induced 0.25 Multiplier
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Effect on jobs from adding 14 jobs to Truss Manufacturing







14 Initial 1.00 Multiplier	3 Direct 0.23 Multiplier	1 Indirect 0.05 Multiplier	3 Induced 0.25 Multiplier
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Effect on taxes on production and imports from adding 14 jobs to Truss Manufacturing









\$53,069 Local	\$46,038 State	\$17,454 Federal
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Scenario Results - Industry













NAICS	Industry	Change in Jobs
11	Crop and Animal Production	0
21	Mining, Quarrying, and Oil and Gas Extraction	0
22	Utilities	0
23	Construction	0
31	Manufacturing	15 
42	Wholesale Trade	1 
44	Retail Trade	0
48	Transportation and Warehousing	1 
51	Information	0
52	Finance and Insurance	0
53	Real Estate and Rental and Leasing	0
54	Professional, Scientific, and Technical Services	1 
55	Management of Companies and Enterprises	0
56	Administrative and Support and Waste Management and Remediation Services	0
61	Educational Services	0
62	Health Care and Social Assistance	1 
71	Arts, Entertainment, and Recreation	0
72	Accommodation and Food Services	0
81	Other Services (except Public Administration)	1 
90	Government	0

Scenario Results - Occupation

SOC	Occupation	Change in Jobs
11-0000	Management Occupations	1 

13-0000	Business and Financial Operations Occupations	1	
15-0000	Computer and Mathematical Occupations	0	
17-0000	Architecture and Engineering Occupations	1	
19-0000	Life, Physical, and Social Science Occupations	0	
21-0000	Community and Social Service Occupations	0	
23-0000	Legal Occupations	0	
25-0000	Education, Training, and Library Occupations	0	
27-0000	Arts, Design, Entertainment, Sports, and Media Occupations	0	
29-0000	Healthcare Practitioners and Technical Occupations	0	
31-0000	Healthcare Support Occupations	0	
33-0000	Protective Service Occupations	0	
35-0000	Food Preparation and Serving Related Occupations	0	
37-0000	Building and Grounds Cleaning and Maintenance Occupations	0	
39-0000	Personal Care and Service Occupations	0	
41-0000	Sales and Related Occupations	1	
43-0000	Office and Administrative Support Occupations	2	
45-0000	Farming, Fishing, and Forestry Occupations	0	
47-0000	Construction and Extraction Occupations	1	
49-0000	Installation, Maintenance, and Repair Occupations	1	
51-0000	Production Occupations	8	
53-0000	Transportation and Material Moving Occupations	3	
55-0000	Military occupations	0	
99-0000	Unclassified Occupation	0	

Scenario Results - Demographics

Demographics	Change in Jobs
Female 14-18	0
Male 14-18	0
Female 19-21	0
Male 19-21	0
Female 22-24	1 
Male 22-24	1 
Female 25-34	2 
Male 25-34	3 
Female 35-44	2 
Male 35-44	3 
Female 45-54	1 
Male 45-54	3 
Female 55-64	1 
Male 55-64	2 
Female 65-99	1 
Male 65-99	1 

Appendix A - Data Sources and Calculations

Input-Output Data

The input-output model in this report is Emsi's gravitational flows multi-regional social account matrix model (MR-SAM). It is based on data from the Census Bureau's Current Population Survey and American Community Survey; as well as the Bureau of Economic Analysis' National Income and Product Accounts, Input-Output Make and Use Tables, and Gross State Product data. In addition, several Emsi in-house data sets are used, as well as data from Oak Ridge National Labs on the cost of transportation between counties.

State Data Sources

This report uses state data from the following agencies: Nevada Department of Employment, Training and Rehabilitation, Information Development and Processing Division, Research and Analysis Bureau

Sewing Collection impact study from Economic Development

Occupations for Sewing Collections Inc
Employment and Wage Estimates for Nevada, May 2016

Industry 423930 Recyclable Merchant Wholesalers
Firms in NV 58 Employment 763

SOC	Title	Total Employment	Mean Hourly Wage	Hourly Wage				
				10th Percentile	20th Percentile	50th Percentile (Median)	75th Percentile	90th Percentile
43-5061	Production, Planning, and Expediting Clerks	1650	\$22.16	\$15.09	\$17.14	\$20.55	\$26.70	\$31.76
43-9061	Office Clerks, General	27320	\$17.16	\$10.08	\$12.30	\$16.46	\$21.15	\$25.33
51-9061	Inspectors, Testers, Sorters, Samplers & Weighers	2550	\$19.04	\$10.50	\$12.80	\$16.88	\$23.22	\$32.47
51-9198	Helpers--Production Workers	1280	\$12.49	\$8.59	\$9.92	\$11.56	\$15.02	\$18.20
51-9199	Production Workers, All Other	630	\$16.40	\$9.37	\$11.12	\$14.17	\$20.64	\$25.17
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	26770	\$14.09	\$9.03	\$10.57	\$13.02	\$16.60	\$21.21
53-7064	Packers and Packagers, Hand	4190	\$10.68	\$7.92	\$8.54	\$9.68	\$11.78	\$14.55

Occupational Definitions from O*NET

Production, Planning, and Expediting Clerks (43-5061)

Coordinate and expedite the flow of work and materials within or between departments of an establishment according to production schedule. Duties include reviewing and distributing production, work, and shipment schedules; conferring with department supervisors to determine progress of work and completion dates; and compiling reports on progress of work, inventory levels, costs, and production problems.

Office Clerks, General (43-5071)

Perform duties too varied and diverse to be classified in any specific office clerical occupation, requiring knowledge of office systems and procedures. Clerical duties may be assigned in accordance with the office procedures of individual establishments and may include a combination of answering telephones, bookkeeping, typing or word processing, stenography, office machine operation, and filing.

Inspectors, Testers, Sorters, Samplers & Weighers (51-9061)

Inspect, test, sort, sample, or weigh nonagricultural raw materials or processed, machined, fabricated, or assembled parts or products for defects, wear, and deviations from specifications. May use precision measuring instruments and complex test equipment.

Helpers--Production Workers (51-9198)

Help production workers by performing duties requiring less skill. Duties include supplying or holding materials or tools, and cleaning work area and equipment.

Production Workers, All Other (51-9199)

All production workers not listed separately.

Laborers and Freight, Stock, and Material Movers, Hand (53-7062)

Manually move freight, stock, or other materials or perform other general labor. Includes all manual laborers not elsewhere classified.

Packers and Packagers, Hand (53-7064)

Pack or package by hand a wide variety of products and materials.

Detailed descriptions of the skills required for these occupations can be found at <https://www.onetonline.org>

Parameters

Regions

Code	Description
32003	Clark County, NV

Industry Scenario

Code	Description	Change Type	Change Value
423930	Recyclable Material Merchant Wholesalers	Jobs	12

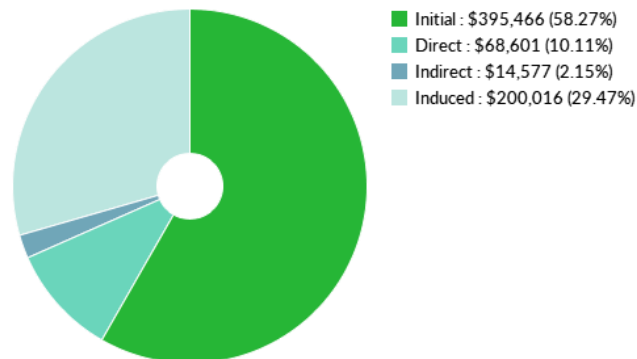
Input-Output Year 2016

Changes to Recyclable Material Merchant Wholesalers

\$678,660	17	\$211,494
Change in Earnings	Change in Jobs	Change in Taxes on Production and Imports (TPI)
1.72 Multiplier	1.45 Multiplier	

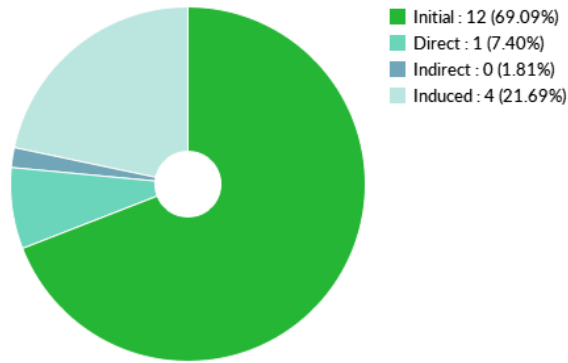
Effect on earnings from adding 12 jobs to Recyclable Material Merchant Wholesalers

\$395,466	\$68,601	\$14,577	\$200,016
Initial	Direct	Indirect	Induced
1.00 Multiplier	0.17 Multiplier	0.04 Multiplier	0.51 Multiplier



Effect on jobs from adding 12 jobs to Recyclable Material Merchant Wholesalers

12	1	0	4
Initial	Direct	Indirect	Induced
1.00 Multiplier	0.11 Multiplier	0.03 Multiplier	0.31 Multiplier



Effect on taxes on production and imports from adding 12 jobs to Recyclable Material Merchant Wholesalers

	\$97,425	\$84,071	\$29,998
	Local	State	Federal

* Scenario Effect on Taxes on Production and Imports - Settings






Scenario Results - Industry

NAICS	Industry	Change in Jobs
11	Crop and Animal Production	0
21	Mining, Quarrying, and Oil and Gas Extraction	0
22	Utilities	0
23	Construction	0
31	Manufacturing	0
42	Wholesale Trade	12
44	Retail Trade	1
48	Transportation and Warehousing	0
51	Information	0
52	Finance and Insurance	0
53	Real Estate and Rental and Leasing	0
54	Professional, Scientific, and Technical Services	0
55	Management of Companies and Enterprises	0
56	Administrative and Support and Waste Management and Remediation Services	0











61	Educational Services	0
62	Health Care and Social Assistance	1 ■
71	Arts, Entertainment, and Recreation	0
72	Accommodation and Food Services	0
81	Other Services (except Public Administration)	0
90	Government	1 ■

Scenario Results - Occupation

SOC	Occupation	Change in Jobs
11-0000	Management Occupations	1 ■
13-0000	Business and Financial Operations Occupations	1 ■
15-0000	Computer and Mathematical Occupations	0
17-0000	Architecture and Engineering Occupations	0
19-0000	Life, Physical, and Social Science Occupations	0
21-0000	Community and Social Service Occupations	0
23-0000	Legal Occupations	0
25-0000	Education, Training, and Library Occupations	0
27-0000	Arts, Design, Entertainment, Sports, and Media Occupations	0
29-0000	Healthcare Practitioners and Technical Occupations	0
31-0000	Healthcare Support Occupations	0
33-0000	Protective Service Occupations	0
35-0000	Food Preparation and Serving Related Occupations	0
37-0000	Building and Grounds Cleaning and Maintenance Occupations	0
39-0000	Personal Care and Service	0

Occupations		
41-0000	Sales and Related Occupations	3 
43-0000	Office and Administrative Support Occupations	3 
45-0000	Farming, Fishing, and Forestry Occupations	0
47-0000	Construction and Extraction Occupations	0
49-0000	Installation, Maintenance, and Repair Occupations	1 
51-0000	Production Occupations	1 
53-0000	Transportation and Material Moving Occupations	5 
55-0000	Military occupations	0
99-0000	Unclassified Occupation	0

Scenario Results - Demographics

Demographics	Change in Jobs
Female 14-18	0
Male 14-18	0
Female 19-21	0
Male 19-21	0
Female 22-24	0
Male 22-24	0
Female 25-34	1 
Male 25-34	2 
Female 35-44	2 
Male 35-44	2 
Female 45-54	2 
Male 45-54	2 
Female 55-64	1 
Male 55-64	2 
Female 65-99	1 
Male 65-99	1 

Appendix A - Data Sources and Calculations

Input-Output Data

The input-output model in this report is Emsi's gravitational flows multi-regional social account matrix model (MR-SAM). It is based on data from the Census Bureau's Current Population Survey and American Community Survey; as well as the Bureau of Economic Analysis' National Income and Product Accounts, Input-Output Make and Use Tables, and Gross State Product data. In addition, several Emsi in-house data sets are used, as well as data from Oak Ridge National Labs on the cost of transportation between counties.

State Data Sources

This report uses state data from the following agencies: Nevada Department of Employment, Training and Rehabilitation, Information Development and Processing Division, Research and Analysis Bureau

Terra Firma Organics impact study from Economic Development

Occupations for Terra Firma Organics Inc
Employment and Wage Estimates for Nevada, May 2016

Industry 325314 Fertilizer (Mixing Only) Manufacturing
Firms in NV 9 Employment 44

SOC	Title	Total Employment	Mean Hourly Wage	Hourly Wage				
				10th Percentile	20th Percentile	50th Percentile (Median)	75th Percentile	90th Percentile
51-9023	Mixing and Blending Machine Setters, Operators, and Tenders	530	\$16.07	\$8.25	\$10.74	\$16.38	\$18.56	\$23.15
51-9011	Chemical Equipment Operators and Tenders	100	\$23.57	\$15.56	\$17.87	\$25.05	\$28.49	\$30.99
51-9111	Packaging and Filling Machine Operators and Tenders	1,230	\$15.06	\$10.33	\$12.10	\$13.99	\$17.78	\$22.39
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	26,770	\$14.09	\$9.03	\$10.57	\$13.02	\$16.60	\$21.21
51-9199	Production Workers, All Other	630	\$16.40	\$9.37	\$11.12	\$14.17	\$20.64	\$25.17

Occupational Definitions from O*NET

Mixing and Blending Machine Setters, Operators, and Tenders

Set up, operate, or tend machines to mix or blend materials, such as chemicals, tobacco, liquids, color pigments, or explosive ingredients.

Chemical Equipment Operators and Tenders

Operate or tend equipment to control chemical changes or reactions in the processing of industrial or consumer products. Equipment used includes devulcanizers, steam-jacketed kettles, and reactor vessels.

Packaging and Filling Machine Operators and Tenders

Operate or tend machines to prepare industrial or consumer products for storage or shipment. Includes cannery workers who pack food products.

Laborers and Freight, Stock, and Material Movers, Hand

Manually move freight, stock, or other materials or perform other general labor. Includes all manual laborers not elsewhere classified.

Production Workers, All Other

All production workers not included separately. Includes recycling and reclamation workers (51-9199.01). Detailed employment and wage information is not available for recycling and reclamation workers in Nevada.

Detailed descriptions of the skills required for these occupations can be found at <https://www.onetonline.org>

Parameters Regions

Code	Description
16180	Carson City, NV

Industry Scenario

Code	Description	Change Type	Change Value
325314	Fertilizer (Mixing Only) Manufacturing	Jobs	10

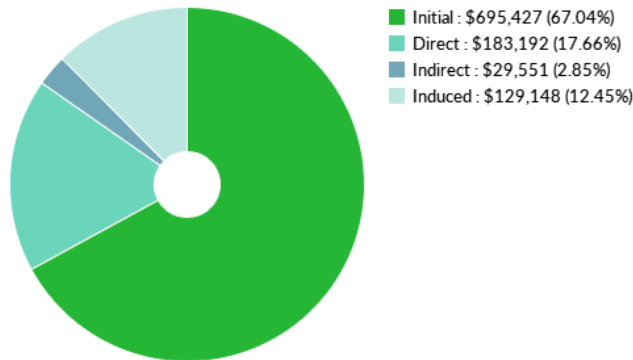
Input-Output Year 2016

Changes to Fertilizer (Mixing Only) Manufacturing

\$1,037,319	16	\$237,388
Change in Earnings	Change in Jobs	Change in Taxes on Production and Imports (TPI)
1.49 Multiplier	1.63 Multiplier	

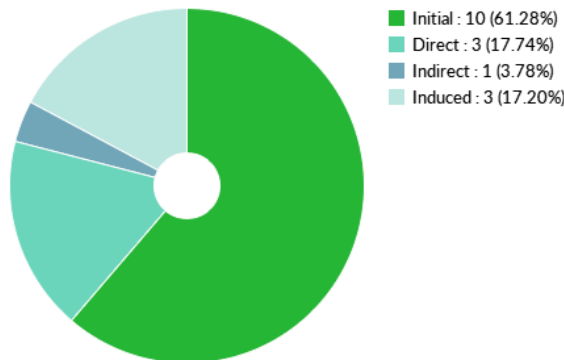
Effect on earnings from adding 10 jobs to Fertilizer (Mixing Only) Manufacturing

\$695,427	\$183,192	\$29,551	\$129,148
Initial	Direct	Indirect	Induced
1.00 Multiplier	0.26 Multiplier	0.04 Multiplier	0.19 Multiplier



Effect on jobs from adding 10 jobs to Fertilizer (Mixing Only) Manufacturing




10	3	1	3
Initial	Direct	Indirect	Induced
1.00 Multiplier	0.29 Multiplier	0.06 Multiplier	0.28 Multiplier










Effect on taxes on production and imports from adding 10 jobs to Fertilizer (Mixing Only) Manufacturing



\$109,660	\$94,744	\$32,984
Local	State	Federal

Scenario Results - Industry










NAICS	Industry	Change in Jobs
11	Crop and Animal Production	0
21	Mining, Quarrying, and Oil and Gas Extraction	0
22	Utilities	0
23	Construction	0
31	Manufacturing	10 
42	Wholesale Trade	1 
44	Retail Trade	0
48	Transportation and Warehousing	0
51	Information	0
52	Finance and Insurance	0
53	Real Estate and Rental and Leasing	0
54	Professional, Scientific, and Technical Services	1 
55	Management of Companies and Enterprises	0
56	Administrative and Support and Waste Management and Remediation Services	0
61	Educational Services	0
62	Health Care and Social Assistance	1 
71	Arts, Entertainment, and Recreation	0
72	Accommodation and Food Services	0
81	Other Services (except Public Administration)	0
90	Government	0

Scenario Results - Occupation

SOC	Occupation	Change in Jobs
11-0000	Management Occupations	1 
13-0000	Business and Financial Operations Occupations	1 
15-0000	Computer and Mathematical Occupations	0
17-0000	Architecture and Engineering Occupations	1 
19-0000	Life, Physical, and Social Science Occupations	0
21-0000	Community and Social Service Occupations	0
23-0000	Legal Occupations	0
25-0000	Education, Training, and Library Occupations	0
27-0000	Arts, Design, Entertainment, Sports, and Media Occupations	0
29-0000	Healthcare Practitioners and Technical Occupations	0
31-0000	Healthcare Support Occupations	0
33-0000	Protective Service Occupations	0
35-0000	Food Preparation and Serving Related Occupations	0
37-0000	Building and Grounds Cleaning and Maintenance Occupations	0
39-0000	Personal Care and Service Occupations	0
41-0000	Sales and Related Occupations	1 
43-0000	Office and Administrative Support Occupations	2 
45-0000	Farming, Fishing, and Forestry Occupations	0
47-0000	Construction and Extraction Occupations	0
49-0000	Installation, Maintenance, and Repair Occupations	1 
51-0000	Production Occupations	3 

53-0000	Transportation and Material Moving Occupations	2	
55-0000	Military occupations	0	
99-0000	Unclassified Occupation	1	

Scenario Results - Demographics

Demographics	Change in Jobs
Female 14-18	0
Male 14-18	0
Female 19-21	0
Male 19-21	0
Female 22-24	0
Male 22-24	0
Female 25-34	1 
Male 25-34	2 
Female 35-44	1 
Male 35-44	2 
Female 45-54	1 
Male 45-54	3 
Female 55-64	1 
Male 55-64	3 
Female 65-99	0
Male 65-99	1 

Appendix A - Data Sources and Calculations

Input-Output Data

The input-output model in this report is Emsi's gravitational flows multi-regional social account matrix model (MR-SAM). It is based on data from the Census Bureau's Current Population Survey and American Community Survey; as well as the Bureau of Economic Analysis' National Income and Product Accounts, Input-Output Make and Use Tables, and Gross State Product data. In addition, several Emsi in-house data sets are used, as well as data from Oak Ridge National Labs on the cost of transportation between counties.

State Data Sources

This report uses state data from the following agencies: Nevada Department of Employment, Training and Rehabilitation, Information Development and Processing Division, Research and Analysis Bureau