

**PERI REPORT**

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# Job Creation Estimates Through Proposed Economic Stimulus Measures

## Modeling Proposals by Various U.S. Civil Society Groups

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# Budget Figures for Program Areas and Methodology for Job Creation Estimates

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## SOURCES FOR BUDGET FIGURES BY PROGRAM AREA

### Infrastructure

**Overall:** The annual investment amounts for most infrastructure subsectors are derived from the 2017 Infrastructure Report Card of the American Society of Civil Engineers (ASCE).<sup>1</sup> The amounts that have been assigned to each investment area are based on the ASCE's assessment of the level of new investments necessary to bring the overall U.S. infrastructure up to a "B" level—i.e. to a "good" quality standard according to the ASCE. As of its most recent 2017 assessment, the ASCE graded the overall U.S. infrastructure at a "D+" level—i.e. on the higher end of "poor" quality. We use the ASCE's estimates for these public infrastructure investment areas: Surface Transportation, Airports, Inland Waterways/Marine Ports, Dams, Hazardous and Solid Waste, Levees, Public Parks and Recreation, and Schools.

**Water/Wastewater:** The annual investment in water infrastructure is the sum of the following investments, as supported by a range of civil society organizations and as reflected in the Sierra Club's April 2020 letter to Congress: \$20 billion/year for the Clean Water and Drinking Water State Revolving Funds, \$4.5 billion/year for the Reducing Lead in Drinking Water program, \$4 billion/year for wastewater infrastructure, \$1.75 billion/year for the U.S. Department of Agriculture's Water and Waste Disposal Loan and Grant program, \$0.45 billion/year for programs to reduce PFAS (Per- and polyfluoroalkyl substances) contamination, and \$1.51 billion/year for various other programs (School Drinking Fountain Replacement, Sewer Overflow Control, Alaska Native Villages and Rural Communities Water, U.S.-Mexico Border Water Infrastructure, Small and Disadvantaged Communities).<sup>2</sup>

**Electricity:** The annual investment in electricity infrastructure is the sum of the following investments, as supported by a range of civil society organizations: \$20 billion/year for energy democracy solutions (including a new Clean Community Energy Fund), \$17.7 billion/year in electrical grid upgrades (from ASCE's Infrastructure Report Card), and \$5 billion/year for rural electric cooperatives (via the U.S. Department of Agriculture's Rural Utilities Service, Rural Housing Service, and Rural Business-Cooperative Service).<sup>3</sup>

**Rail:** The annual investment in rail infrastructure comes from the Rail Passengers Association's survey of unfunded rail upgrade plans from Amtrak and state rail authorities.<sup>4</sup>

**Gas distribution pipelines – leak repairs only:** The annual investment amount for replacing leaks in gas distribution pipelines is based on the BlueGreen Alliance's Making the Grade 2.0 report.<sup>5</sup>

**Broadband:** The annual investment amount for broadband infrastructure is based on the Communications Workers of America proposal.<sup>6</sup>

## Clean Energy

**Building retrofits:** The annual investment amount for building retrofits is a sum of the following investments, as supported by a range of civil society organizations and as reflected in the Sierra Club's April 2020 letter to Congress: \$17.2 billion/year for a Green New Deal for public housing; \$17 billion/year for the Low Income Home Energy Assistance Program; \$7 billion/year for the Weatherization Assistance Program; \$6.12 billion/year for upgrading Municipal, University, School, and Hospital (MUSH) buildings; \$6 billion/year for Community Development Block Grants; and \$3.2 billion/year for the Energy Efficiency and Conservation Block Grant program.<sup>7</sup>

**Industrial efficiency:** The annual investment amount for industrial efficiency is an estimate of the public investments that would be needed to lower annual U.S. greenhouse gas emissions by 45 percent by 2030, in alignment with the global emissions reduction goal for 2030 stipulated by the Intergovernmental Panel on Climate Change in their October 2018 report, Global Warming of 1.5 °C.<sup>8</sup> We assume that this overall level of public investments will be match equally by the same level of investment undertaken by private sector sources.

**High-efficiency autos:** The annual investment amount for high-efficiency autos is the sum of the following investments, as supported by a range of civil society organizations and as reflected in the Sierra Club's April 2020 letter to Congress: \$45.4 billion/year for the Clean Cars for America proposal, \$4.5 billion/year for electric vehicle charging infrastructure, \$4 billion/year to electrify school and transit buses, \$1.23 billion/year to extend and expand the electric vehicle tax credit, \$0.6 billion/year to electrify postal vehicles, and \$0.3 billion/year for the Clean Corridors Act.<sup>9</sup>

**Renewable energy:** The annual investment amounts for wind, solar, and geothermal energy are estimates of the public investments that would be needed to lower annual U.S. greenhouse gas emissions by 45 percent by 2030, in alignment with the global emissions reduction goal for 2030 stipulated by the Intergovernmental Panel on Climate Change in their October 2018 report, Global Warming of 1.5 °C.<sup>10</sup> We assume that this overall level of public investments will be matched equally by the same level of investment undertaken by private sector sources.

Overall, we assume that the overall level of clean energy investments—including both public and private investments—will be about \$720 billion annually. This will amount to about 3 percent of U.S. GDP for 2021.

## Agriculture and Land Restoration

**Agriculture:** The annual investments in agriculture include the following, as supported by a range of civil society organizations: \$91 billion/year for land, training, and resources for Black, Brown, Indigenous, immigrant, young, and other marginalized farmers; \$41 billion/year to equip farmers transitioning to ecologically regenerative practices that rebuild rural communities and protect the climate and environment; \$25 billion/year for farmland conservation (e.g., Conservation Stewardship, Agricultural Conservation Easement, and Regional Conservation Partnership programs); \$2.5 billion/year for research and development in regenerative agricultural practices; and \$1.5 billion for transitioning to organic farming.

**Land restoration:** The annual investments in land restoration include the following investments, as supported by a range of civil society organizations and as reflected in the Sierra Club's April 2020 letter to Congress: \$12 billion/year for closing orphaned and leaking oil and gas wells, \$5.6 billion/year for the Environmental Cleanup Infrastructure Act, \$4 billion/year for Superfund site cleanup, \$2 billion/year for Brownfields site cleanup, \$1 billion/year for the RECLAIM Act and Abandoned Mine Land Reauthorization Act, and \$1 billion/year for the creation of a Stewardship Corps to protect and restore forests, wetlands, and other ecosystems.<sup>11</sup>

## Care Economy, Public Health, and Postal Service

**Care economy:** The annual investments in the care economy (child care, care for people with disabilities, and care for the elderly) are based on The Biden Plan for Mobilizing American Talent and Heart to Create a 21st Century Caregiving and Education Workforce.<sup>12</sup>

**Public health:** The annual investments in public health services include investments in the State Climate and Health program of the Centers for Disease Control and Prevention, improvements in public health emergency preparedness, and funding to address social determinants of health and advance health equity.

**Postal service:** The annual investments in the postal service are based on the U.S. Postal Service estimates of the investments that would be needed to modernize and sustain the public postal service.<sup>13</sup>

## DATA SOURCE AND METHODOLOGY

### Data Source

All figures have been estimated on the basis of calculations generated within the 2020 IMPLAN U.S. input/output tables. The IMPLAN U.S. input/output model features 546 industries within the U.S. economy. The data in the model are from 2018.

### Time Dimension in Measuring Job Creation

Any type of spending activity creates employment over a given amount of time. To understand the impact on jobs of a given spending activity, one must therefore incorporate a time dimension into the measurement of employment creation. For example, a project that creates 100 jobs that last for one year only needs to be distinguished from another project that creates 100 jobs that continue for 10 years each. It is important to keep this time dimension in mind in any assessment of the impact on job creation of any investment activity.

There are two straightforward ways in which one can express such distinctions. One is through measuring “job years.” This measures cumulative job creation over the total number of years that jobs have been created. Thus, an activity that generates 100 jobs for 1 year would create 100 job years. By contrast, the activity that produces 100 jobs for 10 years would generate 1,000 job years. The other way to report the same figures would be in terms of jobs-per-year. Through this measure, we show the year-to-year breakdown of the overall level of job creation. Thus, with the 10-year project we are using in our example, we could express its effects as creating 100 jobs per year for 10 years.

In the following tables, we report employment creation both in terms of jobs-per-year—i.e. annual job creation—as well as cumulative job years.

### Details on Employment Estimates

For in-depth discussions of our methodological approach to estimating job creation through investments in clean energy and infrastructure, see:

- Pollin et al. (2009) *How Infrastructure Investments Support the U.S. Economy*<sup>14</sup>
- Pollin et al. (2014) *Green Growth*<sup>15</sup>
- Pollin et al. (2015) *Global Green Growth*<sup>16</sup>

**TABLE 1: Infrastructure**

**1A) Job Creation from Infrastructure Programs: *Direct, Indirect, and Induced Jobs***

|  | Job Creation per \$1 Million in Spending |                  |                 |                                    |                                |                  |                 |                                    |
|--|--|------------------|-----------------|------------------------------------|--------------------------------|------------------|-----------------|------------------------------------|
|  | Jobs in All Sectors                      |                  |                 |                                    | Manufacturing Sector Jobs Only |                  |                 |                                    |
|  | 1) Direct Jobs                           | 2) Indirect Jobs | 3) Induced Jobs | 4) Total Jobs<br>(= columns 1+2+3) | 5) Direct Jobs                 | 6) Indirect Jobs | 7) Induced Jobs | 8) Total Jobs<br>(= columns 5+6+7) |
| Surface transportation                             | 11.6                                     | 3.3              | 5.7             | 20.6                               | 0.6                            | 0.7              | 0.2             | 1.5                                |
| Water/wastewater                                   | 5.9                                      | 3.4              | 5.4             | 14.7                               | 0.7                            | 0.5              | 0.2             | 1.4                                |
| Electricity  | 3.2                                      | 3.1              | 4.2             | 10.5                               | 1.6                            | 0.9              | 0.2             | 2.7                                |
| Airports   | 3.6                                      | 2.5              | 4.2             | 10.3                               | 0.5                            | 0.7              | 0.2             | 1.4                                |
| Inland waterways/<br>marine ports                  | 4.0                                      | 3.9              | 4.9             | 12.8                               | 1.2                            | 0.7              | 0.2             | 2.1                                |
| Dams   | 8.0                                      | 3.8              | 6.8             | 18.6                               | 0.8                            | 0.7              | 0.3             | 1.8                                |
| Hazardous and<br>solid waste                       | 6.5                                      | 3.4              | 5.4             | 15.3                               | 0.0                            | 0.5              | 0.2             | 0.7                                |
| Levees   | 8.1                                      | 3.8              | 6.9             | 18.8                               | 0.8                            | 0.7              | 0.3             | 1.8                                |
| Public parks and<br>recreation                     | 11.6                                     | 3.4              | 6.2             | 21.2                               | 0.0                            | 0.3              | 0.3             | 0.6                                |
| Rail   | 3.2                                      | 3.5              | 4.5             | 11.2                               | 0.6                            | 0.9              | 0.2             | 1.7                                |
| Schools  | 12.0                                     | 2.4              | 6.4             | 20.8                               | 0.0                            | 0.4              | 0.3             | 0.7                                |
| Gas distribution<br>pipelines—leak<br>repairs only | 1.1                                      | 2.3              | 5.2             | 8.6                                | 0.0                            | 0.1              | 0.2             | 0.3                                |
| Broadband  | 2.5                                      | 3.6              | 4.0             | 10.1                               | 0.6                            | 0.5              | 0.2             | 1.3                                |

**TABLE 1: Infrastructure** (cont.)

**1B) Infrastructure Programs: Total Jobs Created with Budgetary Figures**

|  | 1) Total Jobs/<br>\$1 Million<br><i>(from Table 1A)</i> | Annual Job Creation |   | Job-Years Created, All Years |                    |   |
|--|---|---------------------|---|------------------------------|--------------------|---|
|  |   | 2) Annual<br>Budget | 3) Job Creation<br>per Year<br><i>(= columns 1 x 2)</i> | 4) # of<br>Years             | 5) Total<br>Budget | 6) Total<br>Job Years<br><i>(= columns 3 x 4)</i> |
| Surface transportation                             | 20.6  | \$110.1 billion     | 2,268,060   | 10                           | \$1,101 billion    | 22,680,600  |
| Water/wastewater                                   | 14.7  | \$32.2 billion      | 474,810   | 10                           | \$322 billion      | 4,748,100   |
| Electricity  | 10.5  | \$42.7 billion      | 448,350   | 10                           | \$427 billion      | 4,483,500   |
| Airports   | 10.3  | \$4.2 billion       | 43,260  | 10                           | \$42 billion       | 432,600   |
| Inland waterways/<br>marine ports                  | 12.8  | \$1.5 billion       | 19,200  | 10                           | \$15 billion       | 192,000   |
| Dams   | 18.6  | \$3.9 billion       | 72,540  | 10                           | \$39 billion       | 725,400   |
| Hazardous and<br>solid waste                       | 15.3  | \$0.3 billion       | 4,590   | 10                           | \$3 billion        | 45,900  |
| Levees   | 18.8  | \$7.0 billion       | 131,600   | 10                           | \$70 billion       | 1,316,000   |
| Public parks and<br>recreation                     | 21.2  | \$10.2 billion      | 216,240   | 10                           | \$102 billion      | 2,162,400   |
| Rail   | 11.2  | \$20.9 billion      | 234,080   | 10                           | \$209 billion      | 2,340,800   |
| Schools  | 20.8  | \$38.0 billion      | 790,400   | 10                           | \$380 billion      | 7,904,000   |
| Gas distribution<br>pipelines—leak<br>repairs only | 8.6   | \$18.3 billion      | 157,380   | 10                           | \$183 billion      | 1,573,800   |
| Broadband  | 10.1  | \$35 billion        | 353,500   | 10                           | \$350 billion      | 3,535,000   |
| Totals   | ---   | \$324.3 billion     | 5,214,010   | 10                           | \$3,243 billion    | 52,140,100  |

**TABLE 1: Infrastructure** (cont.)

**1C) Infrastructure Programs: Manufacturing Jobs Only Created with Budgetary Figures**

|  | 1) Total Jobs/<br>\$1 Million<br><i>(from Table 1A)</i> | Annual Job Creation |   | Job-Years Created, All Years |                    |   |
|--|---|---------------------|---|------------------------------|--------------------|---|
|  |   | 2) Annual<br>Budget | 3) Job Creation<br>per Year<br><i>(= columns 1 x 2)</i> | 4) # of<br>Years             | 5) Total<br>Budget | 6) Total<br>Job Years<br><i>(= columns 3 x 4)</i> |
| Surface transportation                             | 1.5   | \$110.1 billion     | 165,150   | 10                           | \$1,101 billion    | 1,651,500   |
| Water/wastewater                                   | 1.4   | \$32.2 billion      | 45,220  | 10                           | \$322 billion      | 452,200   |
| Electricity  | 2.7   | \$42.7 billion      | 115,290   | 10                           | \$427 billion      | 1,152,900   |
| Airports   | 1.4   | \$4.2 billion       | 5,880   | 10                           | \$42 billion       | 58,800  |
| Inland waterways/<br>marine ports                  | 2.1   | \$1.5 billion       | 3,150   | 10                           | \$15 billion       | 31,500  |
| Dams   | 1.8   | \$3.9 billion       | 7,020   | 10                           | \$39 billion       | 70,200  |
| Hazardous and<br>solid waste                       | 0.7   | \$0.3 billion       | 210   | 10                           | \$3 billion        | 2,100   |
| Levees   | 1.8   | \$7 billion         | 12,600  | 10                           | \$70 billion       | 126,000   |
| Public parks and<br>recreation                     | 0.6   | \$10.2 billion      | 6,120   | 10                           | \$102 billion      | 61,200  |
| Rail   | 1.7   | \$20.9 billion      | 35,530  | 10                           | \$209 billion      | 355,300   |
| Schools  | 0.7   | \$38 billion        | 26,600  | 10                           | \$380 billion      | 266,000   |
| Gas distribution<br>pipelines—leak<br>repairs only | 0.3   | \$18.3 billion      | 5,490   | 10                           | \$183 billion      | 54,900  |
| Broadband  | 1.3   | \$35 billion        | 45,500  | 10                           | \$350 billion      | 455,000   |
| Totals   | ---   | \$324.3 billion     | 473,760   | 10                           | \$3,243 billion    | 4,737,600   |



## TABLE 2: Clean Energy

### 2A) Job Creation from Clean Energy Programs: *Direct, Indirect, and Induced Jobs*

|                          | Job Creation per \$1 Million in Spending |                  |                 |                                    |                                |                  |                 |                                    |
|--------------------------|--|------------------|-----------------|------------------------------------|--------------------------------|------------------|-----------------|------------------------------------|
|                          | Jobs in All Sectors                      |                  |                 |                                    | Manufacturing Sector Jobs Only |                  |                 |                                    |
|                          | 1) Direct Jobs                           | 2) Indirect Jobs | 3) Induced Jobs | 4) Total Jobs<br>(= columns 1+2+3) | 5) Direct Jobs                 | 6) Indirect Jobs | 7) Induced Jobs | 8) Total Jobs<br>(= columns 5+6+7) |
| <b>Energy efficiency</b> |  |                  |                 |                                    |                                |                  |                 |                                    |
| Building retrofits       | 4.7                                      | 4.0              | 4.7             | 13.4                               | 0.0                            | 0.8              | 0.2             | 1.0                                |
| Industrial efficiency    | 5.2                                      | 3.4              | 5.6             | 14.2                               | 1.5                            | 0.7              | 0.2             | 2.4                                |
| High-efficiency autos    | 1.4                                      | 3.7              | 3.5             | 8.6                                | 1.4                            | 1.3              | 0.2             | 2.9                                |
| <b>Renewable energy</b>  |  |                  |                 |                                    |                                |                  |                 |                                    |
| Wind energy              | 3.6                                      | 3.5              | 4.7             | 11.8                               | 1.9                            | 0.7              | 0.2             | 2.8                                |
| Solar energy             | 3.8                                      | 3.1              | 4.4             | 11.3                               | 2.2                            | 0.7              | 0.2             | 3.1                                |
| Geothermal energy        | 3.7                                      | 3.2              | 4.8             | 11.7                               | 0.4                            | 0.4              | 0.2             | 1.0                                |

**TABLE 2: Clean Energy** (cont.)

**2B) Clean Energy Programs: Total Jobs Created with Budgetary Figures**

|                          | 1) Total Jobs/<br>\$1 Million<br><i>(from Table 2A)</i> | Annual Job Creation |  | Job-Years Created, All Years |                    |   |
|--------------------------|---|---------------------|--|------------------------------|--------------------|---|
|                          |   | 2) Annual<br>Budget | 3) Job Ccre-<br>ation per Year<br><i>(= columns 1 x 2)</i> | 4) # of<br>Years             | 5) Total<br>Budget | 6) Total<br>Job Years<br><i>(= columns 3 x 4)</i> |
| <b>Energy Efficiency</b> |   |                     |  |                              |                    |   |
| Building retrofits       | 13.4  | \$56.5 billion      | 757,368  | 10                           | \$565.2 billion    | 7,573,680   |
| Industrial efficiency    | 14.2  | \$6.3 billion       | 88,750   | 10                           | \$62.5 billion     | 887,500   |
| High-efficiency<br>autos | 8.6   | \$56.0 billion      | 481,858  | 10                           | \$560.3 billion    | 4,818,580   |
| <b>Renewable Energy</b>  |   |                     |  |                              |                    |   |
| Wind energy              | 11.8  | \$108 billion       | 1,274,400  | 10                           | \$1,080 billion    | 12,744,000  |
| Solar energy             | 11.3  | \$108 billion       | 1,220,400  | 10                           | \$1,080 billion    | 12,204,000  |
| Geothermal energy        | 11.7  | \$24 billion        | 280,800  | 10                           | \$240 billion      | 2,808,000   |
| Totals                   | ---   | \$358.8 billion     | 4,103,576  | 10                           | \$3,588 billion    | 41,035,760  |

**TABLE 2: Clean Energy** (cont.)

**2C) Clean Energy Programs: Manufacturing Jobs Only Created with Budgetary Figures**

|                          | 1) Total Jobs/<br>\$1 Million<br><i>(from Table 2A)</i> | Annual Job Creation |   | Job-Years Created, All Years |                    |   |
|--------------------------|---|---------------------|---|------------------------------|--------------------|---|
|                          |   | 2) Annual<br>Budget | 3) Job Creation<br>per Year<br><i>(= columns 1 x 2)</i> | 4) # of<br>Years             | 5) Total<br>Budget | 6) Total<br>Job Years<br><i>(= columns 3 x 4)</i> |
| <b>Energy Efficiency</b> |   |                     |   |                              |                    |   |
| Building retrofits       | 1.0   | \$56.5 billion      | 56,520  | 10                           | \$565.2 billion    | 565,200   |
| Industrial efficiency    | 2.4   | \$6.3 billion       | 15,000  | 10                           | \$62.5 billion     | 150,000   |
| High-efficiency<br>autos | 2.9   | \$56.0 billion      | 162,487   | 10                           | \$560.3 billion    | 1,624,870   |
| <b>Renewable Energy</b>  |   |                     |   |                              |                    |   |
| Wind energy              | 2.8   | \$108 billion       | 302,400   | 10                           | \$1,080 billion    | 3,024,000   |
| Solar energy             | 3.1   | \$108 billion       | 334,800   | 10                           | \$1,080 billion    | 3,348,000   |
| Geothermal energy        | 1.0   | \$24 billion        | 24,000  | 10                           | \$240 billion      | 240,000   |
| Totals                   | ---   | \$358.8 billion     | 895,207   | 10                           | \$3,588 billion    | 8,952,070   |

**TABLE 3: Agriculture and Land Restoration**

**3A) Job Creation from Agriculture and Land Restoration Programs: *Direct, Indirect, and Induced Jobs***

|                                    | Job Creation per \$1 Million in Spending |                  |                 |                                    |                                |                  |                 |                                    |
|------------------------------------|--|------------------|-----------------|------------------------------------|--------------------------------|------------------|-----------------|------------------------------------|
|                                    | Jobs in All Sectors                      |                  |                 |                                    | Manufacturing Sector Jobs Only |                  |                 |                                    |
|                                    | 1) Direct Jobs                           | 2) Indirect Jobs | 3) Induced Jobs | 4) Total Jobs<br>(= columns 1+2+3) | 5) Direct Jobs                 | 6) Indirect Jobs | 7) Induced Jobs | 8) Total Jobs<br>(= columns 5+6+7) |
| <b><i>Agriculture</i></b>          |  |                  |                 |                                    |                                |                  |                 |                                    |
| Regenerative agriculture           | 14.1                                     | 4.9              | 4.8             | 23.8                               | 0.0                            | 0.4              | 0.2             | 0.6                                |
| Farmland conservation              | 9.6                                      | 3.4              | 6.4             | 19.4                               | 0.0                            | 0.2              | 0.3             | 0.5                                |
| Organic farming                    | 14.1                                     | 4.9              | 4.8             | 23.8                               | 0.0                            | 0.4              | 0.2             | 0.6                                |
| Resources for marginalized farmers | 15.7                                     | 3.3              | 6.4             | 25.3                               | 0.0                            | 0.2              | 0.3             | 0.5                                |
| Agricultural R&D                   | 3.4                                      | 3.7              | 5.5             | 12.6                               | 0.0                            | 0.1              | 0.2             | 0.3                                |
| <b><i>Land Restoration</i></b>     |  |                  |                 |                                    |                                |                  |                 |                                    |
| Pollution cleanup                  | 7.3                                      | 2.9              | 5.7             | 15.9                               | 0.0                            | 0.2              | 0.3             | 0.5                                |
| Closing orphaned wells             | 7.1                                      | 3.2              | 5.6             | 15.9                               | 0.0                            | 0.3              | 0.2             | 0.5                                |
| Ecosystem restoration              | 13.2                                     | 3.4              | 6.4             | 23.0                               | 0.0                            | 0.2              | 0.3             | 0.5                                |

**TABLE 3: Agriculture and Land Restoration** (cont.)

**3B) Job Creation from Agriculture and Land Restoration Programs: Total Jobs Created with Budgetary Figures**

|                                    | 1) Total Jobs/<br>\$1 Million<br><i>(from Table 3A)</i> | Annual Job Creation |   | Job-Years Created, All Years |                    |   |
|------------------------------------|---|---------------------|---|------------------------------|--------------------|---|
|                                    |   | 2) Annual<br>Budget | 3) Job Creation<br>per Year<br><i>(= columns 1 x 2)</i> | 4) # of<br>Years             | 5) Total<br>Budget | 6) Total<br>Job Years<br><i>(= columns 3 x 4)</i> |
| <b>Agriculture</b>                 |   |                     |   |                              |                    |   |
| Regenerative agriculture           | 23.8  | \$41 billion        | 975,800   | 10                           | \$410 billion      | 9,758,000   |
| Farmland conservation              | 19.4  | \$25 billion        | 485,000   | 10                           | \$250 billion      | 4,850,000   |
| Organic farming                    | 23.8  | \$1.5 billion       | 35,700  | 10                           | \$15 billion       | 357,000   |
| Resources for marginalized farmers | 25.3  | \$91 billion        | 2,302,300   | 10                           | \$910 billion      | 23,023,000  |
| Agricultural R&D                   | 12.6  | \$2.5 billion       | 31,500  | 10                           | \$25 billion       | 315,000   |
| <b>Land Restoration</b>            |   |                     |   |                              |                    |   |
| Pollution cleanup                  | 15.9  | \$12.6 billion      | 200,300   | 10                           | \$126 billion      | 2,003,000   |
| Closing orphaned wells             | 15.9  | \$12.0 billion      | 190,800   | 10                           | \$120 billion      | 1,908,000   |
| Ecosystem restoration              | 23.0  | \$1.0 billion       | 23,000  | 10                           | \$10 billion       | 230,000   |
| Totals                             | ---   | \$186.6 billion     | 4,244,400   | 10                           | \$1,866 billion    | 42,444,000  |

**TABLE 3: Agriculture and Land Restoration** (cont.)

**3C) Job Creation from Agriculture and Land Restoration Programs: Manufacturing Jobs Only Created with Budgetary Figures**

|                                    | 1) Total Jobs/<br>\$1 Million<br><i>(from Table 3A)</i> | Annual Job Creation |  | Job-Years Created, All Years |                 |  |
|------------------------------------|---|---------------------|--|------------------------------|-----------------|--|
|                                    |   | 2) Annual Budget    | 3) Job Creation per Year<br><i>(= columns 1 x 2)</i> | 4) # of Years                | 5) Total Budget | 6) Total Job Years<br><i>(= columns 3 x 4)</i> |
| <b><i>Agriculture</i></b>          |   |                     |  |                              |                 |  |
| Regenerative agriculture           | 0.6   | \$41 billion        | 24,600   | 10                           | \$410 billion   | 246,000  |
| Farmland conservation              | 0.5   | \$25 billion        | 12,500   | 10                           | \$250 billion   | 125,000  |
| Organic farming                    | 0.6   | \$1.5 billion       | 900  | 10                           | \$15 billion    | 9,000  |
| Resources for marginalized farmers | 0.5   | \$91 billion        | 45,500   | 10                           | \$910 billion   | 455,000  |
| Agricultural R&D                   | 0.3   | \$2.5 billion       | 750  | 10                           | \$25 billion    | 7,500  |
| <b><i>Land Restoration</i></b>     |   |                     |  |                              |                 |  |
| Pollution cleanup                  | 0.5   | \$12.6 billion      | 6,300  | 10                           | \$126 billion   | 63,000   |
| Closing orphaned wells             | 0.5   | \$12.0 billion      | 6,000  | 10                           | \$120 billion   | 60,000   |
| Ecosystem restoration              | 0.5   | \$1.0 billion       | 500  | 10                           | \$10 billion    | 5,000  |
| Totals                             | ---   | \$186.6 billion     | 97,050   | 10                           | \$1,866 billion | 970,500  |

**TABLE 4: Care Economy, Public Health, and Postal Service**

**4A) Job Creation from Care Economy, Public Health, and Postal Service: Direct, Indirect, and Induced Jobs**

|                | Job Creation per \$1 Million in Spending |                  |                 |                                    |                                |                  |                 |                                    |
|----------------|--|------------------|-----------------|------------------------------------|--------------------------------|------------------|-----------------|------------------------------------|
|                | Jobs in All Sectors                      |                  |                 |                                    | Manufacturing Sector Jobs Only |                  |                 |                                    |
|                | 1) Direct Jobs                           | 2) Indirect Jobs | 3) Induced Jobs | 4) Total Jobs<br>(= columns 1+2+3) | 5) Direct Jobs                 | 6) Indirect Jobs | 7) Induced Jobs | 8) Total Jobs<br>(= columns 5+6+7) |
| Care economy   | 18.6                                     | 2.9              | 7.1             | 28.6                               | 0.0                            | 0.3              | 0.3             | 0.6                                |
| Public health  | 8.0                                      | 3.2              | 5.9             | 17.1                               | 0.0                            | 0.2              | 0.3             | 0.5                                |
| Postal Service | 7.6                                      | 2.2              | 6.2             | 16.0                               | 0.4                            | 0.5              | 0.3             | 1.2                                |

**TABLE 4: Care Economy, Public Health, and Postal Service** *(cont.)*

**4B) Job Creation from Care Economy, Public Health, and Postal Service: Total Jobs Created with Budgetary Figures**

|                | 1) Total Jobs/<br>\$1 Million<br><i>(from Table 4A)</i> | Annual Job Creation |   | Job-Years Created, All Years |                    |   |
|----------------|---|---------------------|---|------------------------------|--------------------|---|
|                |   | 2) Annual<br>Budget | 3) Job Creation<br>per Year<br><i>(= columns 1 x 2)</i> | 4) # of<br>Years             | 5) Total<br>Budget | 6) Total<br>Job Years<br><i>(= columns 3 x 4)</i> |
| Care economy   | 28.6  | \$77.5 billion      | 2,216,500   | 10                           | \$775 billion      | 22,165,000  |
| Public health  | 17.1  | \$4.5 billion       | 76,950  | 10                           | \$45 billion       | 769,500   |
| Postal Service | 16.0  | \$2.5 billion       | 40,000  | 10                           | \$25 billion       | 400,000   |
| Totals         | --  | \$84.5 billion      | 2,333,450   | 10                           | \$845 billion      | 23,334,500  |



**TABLE 4: Care Economy, Public Health, and Postal Service** *(cont.)*

**4C) Job Creation from Care Economy, Public Health, and Postal Service: Manufacturing Jobs Only Created with Budgetary Figures**

|                | 1) Total Jobs/<br>\$1 Million<br><i>(from Table 4A)</i> | Annual Job Creation |  | Job-Years Created, All Years |                 |  |
|----------------|---|---------------------|--|------------------------------|-----------------|--|
|                |   | 2) Annual Budget    | 3) Job Creation per Year<br><i>(= columns 1 x 2)</i> | 4) # of Years                | 5) Total Budget | 6) Total Job Years<br><i>(= columns 3 x 4)</i> |
| Care economy   | 0.6   | \$77.5 billion      | 46,500   | 10                           | \$775 billion   | 465,000  |
| Public health  | 0.5   | \$4.5 billion       | 2,250  | 10                           | \$45 billion    | 22,500   |
| Postal Service | 1.2   | \$2.5 billion       | 3,000  | 10                           | \$25 billion    | 30,000   |
| Totals         | --  | \$84.5 billion      | 51,750   | 10                           | \$845 billion   | 517,500  |

**TABLE 5: Job Creation Estimates for All Categories: Summary Figures**

**Total Job Creation: Summary Figures from Tables 1B–4B**

|   | Annual Budget and Job Creation Figures |                     | Total Budget and Job-Years Figures |                               |
|---|--|---------------------|------------------------------------|-------------------------------|
|   | Annual Budget                          | Annual Job Creation | Total Budget                       | Total Job Creation, Job Years |
| Infrastructure programs                         | \$324.3 billion                        | 5.2 million         | \$3.2 trillion                     | 52.1 million                  |
| Clean energy programs                           | \$358.8 billion                        | 4.1 million         | \$3.6 trillion                     | 41.0 million                  |
| Agriculture and land restoration programs       | \$186.6 billion                        | 4.2 million         | \$1.9 trillion                     | 42.4 million                  |
| Care economy, public health, and postal service | \$84.5 billion                         | 2.3 million         | \$845 billion                      | 23.3 million                  |
| <b>TOTALS</b>                                   | <b>\$954.2 billion</b>                 | <b>15.9 million</b> | <b>\$9.5 trillion</b>              | <b>158.9 million</b>          |

**Manufacturing Job Creation ONLY: Summary Figures from Tables 1C–4C**

|   | Annual Budget and Job Creation Figures |                                   | Total Budget and Job-Years Figures |   |
|---|--|-----------------------------------|------------------------------------|---|
|   | Annual Budget                          | Annual Manufacturing Job Creation | Total Budget                       | Total Manufacturing Job Creation, Job Years |
| Infrastructure programs                         | \$324.3 billion                        | 473,760                           | \$3.2 trillion                     | 4.7 million                                 |
| Clean energy programs                           | \$358.8 billion                        | 895,207                           | \$3.6 trillion                     | 9.0 million                                 |
| Agriculture and land restoration programs       | \$186.6 billion                        | 97,050                            | \$1.9 trillion                     | 970,500                                     |
| Care economy, public health, and postal service | \$84.5 billion                         | 51,750                            | \$845 billion                      | 517,500                                     |
| <b>TOTALS</b>                                   | <b>\$954.2 billion</b>                 | <b>1.5 million</b>                | <b>\$9.5 trillion</b>              | <b>15.2 million</b>                         |

## Endnotes

- 1 <https://www.infrastructurereportcard.org/the-impact/economic-impact/>
- 2 <https://www.sierraclub.org/sites/www.sierraclub.org/files/COVID%20stimulus.pdf>
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- 4 <https://www.railpassengers.org/tools-info/reports/unfunded-train-projects-in-america/>
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- 7 <https://www.sierraclub.org/sites/www.sierraclub.org/files/COVID%20stimulus.pdf>
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- 9 <https://www.sierraclub.org/sites/www.sierraclub.org/files/COVID%20stimulus.pdf>  
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- 15 <https://www.americanprogress.org/issues/green/reports/2014/09/18/96404/green-growth/>
- 16 [https://www.unido.org/sites/default/files/2015-05/GLOBAL\\_GREEN\\_GROWTH\\_REPORT\\_vol1\\_final\\_0.pdf](https://www.unido.org/sites/default/files/2015-05/GLOBAL_GREEN_GROWTH_REPORT_vol1_final_0.pdf)

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