

Job Creation Estimates for New Jersey through U.S. THRIVE Agenda

Program to Transform, Heal, and Renew by Investing in a Vibrant Economy—THRIVE

This report presents estimates of the job creation that would result in New Jersey if the U.S. Congress passes economic recovery legislation that implements a national THRIVE investment agenda, as described in a September 2020 Congressional resolution.¹ The overall finding we report here is that implementing the 10-year THRIVE investment agenda in New Jersey would generate about 196,000 jobs in the first full year of the program. This higher level of employment in New Jersey would be sustained throughout the 10 years of the investment program (assuming no other major changes in New Jersey's economy were to occur).² Thus, if the THRIVE program were implemented in full in 2021, employment in New Jersey would increase by 196,000 jobs and that higher level of employment would continue in the state as the 10-year program continues until 2030.

The Congressional resolution's commitment is to "Transform, Heal and Renew by Investing in a Vibrant Economy"—i.e. "THRIVE"—through a range of investments to rebuild the U.S. economy. To date, the THRIVE Agenda has been endorsed by more than 100 members of Congress, including Senate Majority Leader Chuck Schumer, and hundreds of major union, racial justice, and climate organizations.³ The aims of the THRIVE Agenda are similar to those proposed in the Build Back Better program advanced by President Biden during his 2020 presidential campaign.

1 <https://www.congress.gov/bill/116th-congress/house-resolution/1102/text>

2 Of course, other changes in New Jersey's economy will occur over the 10-year period 2021 – 2030, often in ways that cannot be predicted in advance. Still, our estimate of a 196,000 increase in employment under an "all else equal" assumption provides a benchmark for measuring the extent to which the THRIVE Agenda will expand job opportunities in the state, even after we allow that, in reality, economic conditions will undergo changes between 2021- 2030.

3 <https://www.thriveagenda.com>

Robert Pollin

Jeannette Wicks-Lim

Shouvik Chakraborty

Gregor Semieniuk

Chirag Lala

The THRIVE Agenda consists of four major investment areas:

1. Clean renewable energy and energy efficiency: To expand access to renewable energy and improve the energy efficiency of vehicles, buildings, and industries so as to achieve the climate stabilization goals set out by the Intergovernmental Panel on Climate Change (IPCC) of reducing carbon dioxide emissions by 45 percent by 2030 and to reach net zero emissions by 2050.

2. Infrastructure: To expand access to affordable transportation, high-speed broadband, clean water, upgrade parks and other public amenities, reduce pollution, and strengthen the public resources needed to undergird a manufacturing revival.

3. Agriculture and land restoration: To expand opportunities for family farmers, including younger farmers and people of color, and to support regenerative agriculture, local and regional food systems, and climate resilience.

4. Care economy, public health, and the postal system: To significantly expand and enhance the level of service provision in these crucial areas of the economy and to raise job quality standards—including wages, benefits, and workplace conditions—for workers employed in these activities.

For the U.S. as a whole, the THRIVE Agenda is designed as a 10-year investment program, with an average annual budget of \$954 billion.⁴ This would amount to about 4.0 percent of average U.S. Gross Domestic Product over 2021 – 2030, assuming that the U.S. economy grows at about 2.2 percent per year.

Our job creation estimates for New Jersey result from the state receiving its share of the overall THRIVE budget based on its share of the U.S. population. Because New Jersey accounts for 2.7 percent of the U.S. population, its share of the \$954.2 billion annual U.S. THRIVE budget would be \$25.8 billion per year (with rounding). The proportions of total THRIVE spending in New Jersey will also be equal to their respective shares for the overall U.S. economy. In Table 1, we show New Jersey's annual budget allocations by investment area under THRIVE between 2021 – 2030. They amount to: \$9.6 billion for clean renewable energy and energy efficiency; \$8.8 billion for infrastructure; \$5.1 billion for agriculture and land restoration; and \$2.3 billion for the care economy, public health and postal service.

As we noted above and present in detail in the following tables, this level of investment spending in New Jersey will generate an average of about 196,000 jobs within the state. This is equal to 4.3 percent of New Jersey's labor force as of February 2020. To illustrate the potential impact of this level of job creation in New Jersey, let us assume that these investments are undertaken in the state, and all else about the state's economy were to remain

⁴ In our March 2021 report *Employment Impacts of Proposed U.S. Economic Stimulus Programs: Job Creation, Job Quality, and Demographic Distribution Measures*, we describe the components of the overall U.S. THRIVE Agenda and the sources for the budget figures in the program's various investment areas. We also present details on our methodology for estimating job creation figures and related data presented for the national THRIVE program: <https://www.peri.umass.edu/publication/item/1397-employment-impacts-of-proposed-u-s-economic-stimulus-programs>.

TABLE 1: U.S. THRIVE Agenda Budget and New Jersey Budget Allocations through THRIVE
New Jersey population = 2.7% of U.S. population

	Overall U.S. THRIVE Agenda Budget		New Jersey THRIVE Agenda Budget Allocations
	U.S. THRIVE Agenda Budget Allocations	Shares of U.S. THRIVE Agenda Budget Allocations	
Clean renewable energy and energy efficiency	\$358.8 billion	37.6%	\$9.6 billion
Infrastructure	\$324.3 billion	34.0%	\$8.8 billion
Agriculture and land restoration	\$186.6 billion	19.5%	\$5.1 billion
Care economy, public health, and postal service	\$84.5 billion	8.9%	\$2.3 billion
Totals	\$954.2 billion	100%	\$25.8 billion

Source: <https://www.peri.umass.edu/publication/item/1397-employment-impacts-of-proposed-u-s-economic-stimulus-programs>.

equal. Under such an “all else equal” assumption, this level of job creation would result, for example, in the state’s unemployment rate falling to 5.3 percent from its average level of 9.6 percent between July – December 2020. A reduction in New Jersey’s unemployment rate at something approximate to this scale would represent a major expansion in job opportunities throughout the state. Indeed, implementing the THRIVE Agenda in New Jersey would likely encourage a large number of people to enter New Jersey’s labor force, or to reenter after having dropped out because their prospects for getting hired had been discouraging. Overall, the rise in the state’s employment opportunities will provide a foundation for a broader improvement in living conditions for the people of New Jersey.⁵

Of course, this expansion in job opportunities would be in addition to the benefits to the people of New Jersey through implementing the THRIVE investment program—i.e. the benefits resulting from building a clean energy system throughout the state; deepening the state’s commitment to protecting its environment; enhancing productivity and business opportunities through upgrading the state’s infrastructure; widening opportunities in agriculture and land restoration; and raising quality standards in the provision of care economy, health care and postal delivery services.

⁵ In *Employment Impacts of Proposed U.S. Economic Stimulus Programs*, as cited above, we provide evidence on job creation at the national level within five major sectors of the U.S. economy: manufacturing; services; construction; wholesale and retail trade; and agriculture. For example, we report that manufacturing employment through the national THRIVE program will amount to 1.6 million jobs, equal to 10.3 percent of the 15.5 million overall level of job creation. This study of the U.S. economy-wide impact of the THRIVE Agenda also includes data on 1) wages, benefits and unionization rates for workers currently employed in the range of activities associated with the THRIVE Agenda; 2) educational attainment levels of these workers; and 3) shares of women and people of color employed in these activities at present.

NEW JERSEY Energy Efficiency and Clean Renewable Energy Investments through THRIVE Agenda

TABLE 2A: Energy Efficiency and Clean Renewable Energy Investments: Job Creation—Direct, Indirect, and Induced Jobs

	Job Creation per \$1 Million in Spending			
	1) Direct Jobs	2) Indirect Jobs	3) Induced Jobs	4) Total Jobs
Energy efficiency				
Building retrofits	3.5	1.7	1.9	7.1
Industrial efficiency	2.8	0.8	1.5	5.1
High-efficiency autos	0.0	0.0	0.0	0.0
Renewable energy				
Wind energy	1.6	0.6	0.9	3.1
Solar energy	2.0	0.8	1.3	4.1
Geothermal energy	4.5	1.4	2.6	8.5

TABLE 2B: Energy Efficiency and Clean Renewable Energy Investments: Total Jobs Created with Budgetary Figures

	1) Total Jobs/ \$1 Million	Annual Job Creation		Job-Years Created, All Years		
		Annual Budget	Job Creation per Year	# of Years	Total Budget	Total Job Years
Energy efficiency						
Building retrofits	7.1	\$1.5 billion	10,600	10	\$15.0 billion	106,000
Industrial efficiency	5.1	\$169.8 million	900	10	\$1.7 billion	9,000
High-efficiency autos	0.0	\$1.5 billion	-	10	\$15.0 billion	-
Renewable energy						
Wind energy	3.1	\$2.9 billion	9,000	10	\$29.0 billion	90,000
Solar energy	4.1	\$2.9 billion	11,900	10	\$29.0 billion	119,000
Geothermal energy	8.5	\$647.0 million	5,500	10	\$6.5 billion	55,000
Total		\$9.6 billion	37,900	10	\$96.0 billion	379,000

NEW JERSEY Infrastructure Investments through THRIVE Agenda

TABLE 3A: Infrastructure Investments: Job Creation—Direct, Indirect, and Induced Jobs

	Job Creation per \$1 Million in Spending			
	1) Direct Jobs	2) Indirect Jobs	3) Induced Jobs	4) Total Jobs
Surface transportation	10.6	1.2	2.5	14.3
Water/wastewater	4.3	1.3	2.3	7.9
Electricity	1.5	0.4	0.8	2.7
Airports	2.6	0.8	1.4	4.8
Inland waterways/marine ports	2.8	1.3	1.7	5.8
Dams	6.6	1.7	3.3	11.6
Hazardous and solid waste	4.9	1.6	2.4	8.9
Levees	6.7	1.7	3.3	11.7
Gas distribution pipelines—leak repairs only	0.9	1.4	1.2	3.5
Broadband	1.7	1.3	1.2	4.2
Public parks and recreation	4.9	0.9	1.5	7.3
Rail	2.0	0.7	1.2	3.9
Schools	8.4	1.1	2.7	12.2

TABLE 3B: Infrastructure Investments: Total Jobs Created with Budgetary Figures

	1) Total Jobs/ \$1 Million	Annual Job Creation		Job-Years Created, All Years		
		Annual Budget	Job Creation per Year	# of Years	Total Budget	Total Job Years
Surface transportation	14.3	\$3.0 billion	42,900	10	\$30.0 billion	429,000
Water/wastewater	7.9	\$868.1 million	6,900	10	\$8.7 billion	69,000
Electricity	2.7	\$1.2 billion	3,200	10	\$12.0 billion	32,000
Airports	4.8	\$113.2 million	500	10	\$1.1 billion	5,000
Inland waterways/ marine ports	5.8	\$40.4 million	200	10	\$404.0 million	2,000
Dams	11.6	\$105.1 million	1,200	10	\$1.1 billion	12,000
Hazardous and solid waste	8.9	\$8.1 million	70	10	\$81.0 million	700
Levees	11.7	\$188.7 million	2,200	10	\$1.9 billion	22,000
Gas distribution pipe- lines—leak repairs only	3.5	\$493.3 million	1,700	10	\$4.9 billion	17,000
Broadband	4.2	\$943.5 million	4,000	10	\$9.4 billion	40,000
Public parks and recreation	7.3	\$275.0 million	2,000	10	\$2.8 billion	20,000
Rail	3.9	\$563.4 million	2,200	10	\$5.6 billion	22,000
Schools	12.2	\$1.0 billion	12,200	10	\$10.0 billion	122,000
Total		\$8.8 billion	79,270	10	\$88.0 billion	792,700

NEW JERSEY Agriculture and Land Restoration Investments through THRIVE Agenda

**TABLE 4A: Agriculture and Land Restoration Investments: Job Creation—
Direct, Indirect, and Induced Jobs**

	Job Creation per \$1 Million in Spending			
	1) Direct Jobs	2) Indirect Jobs	3) Induced Jobs	4) Total Jobs
<i>Agriculture</i>				
Regenerative agriculture	3.2	0.4	0.7	4.3
Farmland conservation	3.9	0.7	1.2	5.8
Organic farming	3.2	0.4	0.7	4.3
Resources for marginalized farmers	7.1	1.1	2.0	10.2
Agricultural R&D	4.7	1.6	2.5	8.8
<i>Land restoration</i>				
Pollution cleanup	5.2	1.5	2.5	9.2
Closing orphaned wells	0.6	0.8	0.8	2.2
Ecosystem restoration	7.3	1.2	2.1	10.6

TABLE 4B: Agriculture and Land Restoration Investments: Total Jobs Created with Budgetary Figures

	1) Total Jobs/ \$1 Million	Annual Job Creation		Job-Years Created, All Years		
		Annual Budget	Job Creation per Year	# of Years	Total Budget	Total Job Years
<i>Agriculture</i>						
Regenerative agriculture	4.3	\$1.1 billion	4,700	10	\$11.0 billion	47,000
Farmland conservation	5.8	\$674.0 million	3,900	10	\$6.7 billion	39,000
Organic farming	4.3	\$40.4 million	200	10	\$404.0 million	2,000
Resources for marginalized farmers	10.2	\$2.5 billion	25,500	10	\$25.0 billion	255,000
Agricultural R&D	8.8	\$67.4 million	600	10	\$674.0 million	6,000
<i>Land restoration</i>						
Pollution cleanup	9.2	\$339.7 million	3,100	10	\$3.4 billion	31,000
Closing orphaned wells	2.2	\$323.5 million	700	10	\$3.2 billion	7,000
Ecosystem restoration	10.6	\$27.0 million	300	10	\$270.0 million	3,000
Total		\$5.1 billion	39,000	10	\$51.0 billion	390,000

NEW JERSEY Care Economy, Public Health, and Postal Service Investments through THRIVE Agenda

**TABLE 5A: Care Economy, Public Health, and Postal Service Job Creation—
Direct, Indirect, and Induced Jobs**

	Job Creation per \$1 Million in Spending			
	1) Direct Jobs	2) Indirect Jobs	3) Induced Jobs	4) Total Jobs
Care economy	13.3	1.5	3.3	18.1
Public health	6.0	1.7	2.7	10.4
Postal service	6.6	0.8	2.9	10.3

**TABLE 5B: Care Economy, Public Health, and Postal Service Investments:
Total Jobs Created with Budgetary Figures**

	1) Total Jobs/ \$1 Million	Annual Job Creation		Job-Years Created, All Years		
		Annual Budget	Job Creation per Year	# of Years	Total Budget	Total Job Years
Care economy	18.1	\$2.1 billion	38,000	10	\$21.0 billion	380,000
Public health	10.4	\$121.3 million	1,300	10	\$1.2 billion	13,000
Postal service	10.3	\$67.4 million	700	10	\$674.0 million	7,000
Total		\$2.3 billion	40,000	10	\$23.0 billion	400,000

TABLE 6: NEW JERSEY Job Creation Estimates through all THRIVE Agenda Investments

	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 investments	\$8.8 billion	79,270	\$88.0 billion	792,700
Clean energy investments	\$9.6 billion	37,900	\$96.0 billion	379,000
Agriculture and land restoration investments	\$5.1 billion	39,000	\$51.0 billion	390,000
Care economy, public health, and postal service investments	\$2.3 billion	40,000	\$23.0 billion	400,000
Total	\$25.8 billion	196,170	\$258.0 billion	1,961,700

Acknowledgments

This project was supported financially by the U.S. Green New Deal Network. We gratefully acknowledge their support, as well as the fact that they respected our terms of engagement. Those terms included full autonomy in developing the statistical findings presented here. The study benefited substantially from discussions with Matt Ryan of the Working Families Party, Ben Beachy and Isabel Estevez of the Sierra Club, and Nick Berning of the Green New Deal Network. We also benefited from the excellent research assistance of Ray Caraher, Emily Diaz-Loar, and Bilen Gurara. Kim Weinstein somehow produced a clearly readable document from our cyber-piles of tables.

About the Authors

Robert Pollin

Distinguished University Professor of Economics and
Co-Director, Political Economy Research Institute (PERI)
University of Massachusetts Amherst

Jeannette Wicks-Lim

Associate Professor,
Political Economy Research Institute (PERI)
University of Massachusetts Amherst

Shouvik Chakraborty

Assistant Professor,
Political Economy Research Institute (PERI)
University of Massachusetts Amherst

Gregor Semieniuk

Assistant Professor,
Political Economy Research Institute (PERI)
University of Massachusetts Amherst

Chirag Lala

Economics Ph.D. student,
University of Massachusetts Amherst

POLITICAL ECONOMY RESEARCH INSTITUTE

The Political Economy Research Institute (PERI) promotes human and ecological well-being through our original research. Our approach is to translate what we learn into workable policy proposals that are capable of improving life on our planet today and in the future. In the words of the late Professor Robert Heilbroner, we at PERI “strive to make a workable science out of morality.”

Established in 1998, PERI is an independent unit of the University of Massachusetts, Amherst, with close ties to the Department of Economics. PERI staff frequently work collaboratively with faculty members and graduate students from the University of Massachusetts, and other economists from around the world. Since its founding, PERI has become a leading source of research and policy initiatives on issues of globalization, unemployment, financial market instability, central bank policy, living wages and decent work, and the economics of peace, development, and environmental sustainability.

