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Job Creation Estimates for Florida through U.S. THRIVE Agenda

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

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This report presents estimates of the job creation that would result in Florida 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 Florida would generate about 681,000 jobs in the first full year of the program. This higher level of employment in Florida would be sustained throughout the 10 years of the investment program (assuming no other major changes in Florida's economy were to occur).[2] Thus, if the THRIVE program were implemented in full in 2021, employment in Florida would increase by 681,000 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 Florida'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 681,000 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

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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 Florida result from the state receiving its share of the overall THRIVE budget based on its share of the U.S. population. Because Florida accounts for 6.6 percent of the U.S. population, its share of the $954.2 billion annual U.S. THRIVE budget would be $62.9 billion per year (with rounding). The proportions of total THRIVE spending in Florida will also be equal to their respective shares for the overall U.S. economy. In Table 1, we show Florida's annual budget allocations by investment area under THRIVE between 2021 – 2030. They amount to: $23.6 billion for clean renewable energy and energy efficiency; $21.4 billion for infrastructure; $12.3 billion for agriculture and land restoration; and $5.6 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 Florida will generate an average of about 681,000 jobs within the state. This is equal to 6.5 percent of Florida's labor force as of February 2020. To illustrate the potential impact of this level of job creation in Florida, let us assume that these investments are undertaken in the state, and all else about the state's economy were to remain equal. Under

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 Florida Budget Allocations through THRIVE
Florida population = 6.6% of U.S. population

	Overall U.S. THRIVE Agenda Budget		Florida 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%	$23.6 billion
Infrastructure	$324.3 billion	34.0%	$21.4 billion
Agriculture and land restoration	$186.6 billion	19.5%	$12.3 billion
Care economy, public health, and postal service	$84.5 billion	8.9%	$5.6 billion
Totals	**$954.2 billion**	**100%**	**$62.9 billion**

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

such an "all else equal" assumption, this level of job creation would result, for example, in the state's unemployment rate falling to 1.0 percent from its average level of 7.5 percent between July – December 2020. A reduction in Florida'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 Florida would likely encourage a large number of people to enter Florida'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 Florida.[5]

Of course, this expansion in job opportunities would be in addition to the benefits to the people of Florida 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.

FLORIDA 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	4.7	3.0	2.7	10.4
Industrial efficiency	3.4	1.3	1.9	6.6
High-efficiency autos	0.2	0.1	0.1	0.4
Renewable energy				
Wind energy	1.8	0.9	1.1	3.8
Solar energy	2.2	1.2	1.4	4.8
Geothermal energy	4.9	2.0	2.7	9.6

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

		Annual Job Creation		Job-Years Created, All Years		
	1) Total Jobs/ $1 Million	Annual Budget	Job Creation per Year	# of Years	Total Budget	Total Job Years
Energy efficiency						
Building retrofits	10.4	$3.7 billion	38,500	10	$37.0 billion	385,000
Industrial efficiency	6.6	$415.6 million	2,700	10	$4.2 billion	27,000
High-efficiency autos	0.4	$3.7 billion	1,500	10	$37.0 billion	15,000
Renewable energy						
Wind energy	3.8	$7.1 billion	27,000	10	$71.0 billion	270,000
Solar energy	4.8	$7.1 billion	34,100	10	$71.0 billion	341,000
Geothermal energy	9.6	$1.6 billion	15,400	10	$16.0 billion	154,000
Total		**$23.6 billion**	**119,200**	**10**	**$236.0 billion**	**1,192,000**

FLORIDA 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	13.4	2.0	2.6	18.0
Water/wastewater	5.2	2.2	2.8	10.2
Electricity	1.7	0.6	0.9	3.2
Airports	3.1	1.2	1.8	6.1
Inland waterways/marine ports	3.6	2.5	2.4	8.5
Dams	7.3	2.5	3.6	13.4
Hazardous and solid waste	6.4	2.7	3.2	12.3
Levees	7.4	2.6	3.7	13.7
Gas distribution pipelines– leak repairs only	0.4	0.9	0.6	1.9
Broadband	2.0	2.3	1.6	5.9
Public parks and recreation	12.5	3.4	4.1	20.0
Rail	2.6	1.4	1.8	5.8
Schools	12.3	1.9	4.2	18.4

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

		Annual Job Creation		Job-Years Created, All Years		
	1) Total Jobs/ $1 Million	Annual Budget	Job Creation per Year	# of Years	Total Budget	Total Job Years
Surface transportation	18.0	$7.3 billion	131,400	10	$73.0 billion	1,314,000
Water/wastewater	10.2	$2.1 billion	21,400	10	$21.0 billion	214,000
Electricity	3.2	$2.8 billion	9,000	10	$28.0 billion	90,000
Airports	6.1	$277.0 million	1,700	10	$2.8 billion	17,000
Inland waterways/ marine ports	8.5	$98.9 million	800	10	$1.0 billion	8,000
Dams	13.4	$257.3 million	3,400	10	$2.6 billion	34,000
Hazardous and solid waste	12.3	$19.8 million	200	10	$198.0 million	2,000
Levees	13.7	$461.7 million	6,300	10	$4.6 billion	63,000
Gas distribution pipelines– leak repairs only	1.9	$1.2 billion	2,300	10	$12.0 billion	23,000
Broadband	5.9	$2.3 billion	13,600	10	$23.0 billion	136,000
Public parks and recreation	20.0	$672.8 million	13,500	10	$6.7 billion	135,000
Rail	5.8	$1.4 billion	8,100	10	$14.0 billion	81,000
Schools	18.4	$2.5 billion	46,000	10	$25.0 billion	460,000
Total		**$21.4** billion	**257,700**	**10**	**$214.0 billion**	**2,577,000**

FLORIDA 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
Agriculture				
Regenerative agriculture	10.2	2.2	2.3	14.7
Farmland conservation	9.1	2.6	3.1	14.8
Organic farming	10.2	2.2	2.3	14.7
Resources for marginalized farmers	10.2	2.2	2.9	15.3
Agricultural R&D	6.0	2.7	2.9	11.6
Land restoration				
Pollution cleanup	7.3	2.5	3.4	13.2
Closing orphaned wells	0.4	0.6	0.4	1.4
Ecosystem restoration	13.6	3.3	4.2	21.1

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

		Annual Job Creation		Job-Years Created, All Years		
	1) Total Jobs/ $1 Million	Annual Budget	Job Creation per Year	# of Years	Total Budget	Total Job Years
Agriculture						
Regenerative agriculture	14.7	$2.7 billion	39,700	10	$27.0 billion	397,000
Farmland conservation	14.8	$1.6 billion	23,700	10	$16.0 billion	237,000
Organic farming	14.7	$98.9 million	1,500	10	$1.0 billion	15,000
Resources for marginalized farmers	15.3	$6.0 billion	91,800	10	$60.0 billion	918,000
Agricultural R&D	11.6	$164.9 million	1,900	10	$1.6 billion	19,000
Land restoration						
Pollution cleanup	13.2	$831.1 million	11,000	10	$8.3 billion	110,000
Closing orphaned wells	1.4	$791.5 million	1,100	10	$7.9 billion	11,000
Ecosystem restoration	21.1	$66.0 million	1,400	10	$660.0 million	14,000
Total		**$12.3** billion	**172,100**	**10**	**$123.0** billion	**1,721,000**

FLORIDA 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	17.6	2.4	4.7	24.7
Public health	7.1	2.7	3.3	13.1
Postal service	6.6	1.2	3.6	11.4

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

		Annual Job Creation		Job-Years Created, All Years		
	1) Total Jobs/ $1 Million	Annual Budget	Job Creation per Year	# of Years	Total Budget	Total Job Years
Care economy	24.7	$5.1 billion	126,000	10	$51.0 billion	1,260,000
Public health	13.1	$296.8 million	3,900	10	$3.0 billion	39,000
Postal service	11.4	$164.9 million	1,900	10	$1.6 billion	19,000
Total		**$5.6** billion	**131,800**	**10**	**$56.0** billion	**1,318,000**

TABLE 6: FLORIDA 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	$21.4 billion	257,700	$214.0 billion	2,577,000
Clean energy investments	$23.6 billion	119,200	$236.0 billion	1,192,000
Agriculture and land restoration investments	$12.3 billion	172,100	$123.0 billion	1,721,000
Care economy, public health, and postal service investments	$5.6 billion	131,800	$56.0 billion	1,318,000
Total	**$62.9** billion	**680,800**	**$629.0** billion	**6,808,000**

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