Adding Jobs & Residents

Creating Complimentary Economic Outcomes

Having spent the last 15 years of my career on both the public and private sides of economic development, I have become a curious observer of and participant in this ecosystem. Economic development is and should always be adapting to the opportunities and challenges within local, national, and global economies. To that end, we often see new areas of focus emerge within economic development. One such area is the creation of tools and programs to attract new residents. While the concept has existed for some time, resident attraction programs have proliferated in the last few years.

I conducted some research in order to better understand the fiscal impacts of attracting residents. Resident attraction programs appear to require modest investments on the front end while generating significant tax revenue for state and local governments.

The data show that resident attraction programs and job attraction programs each generate considerable positive return on investment. However, in my experience the two are often operated in isolation from each other. It seems there is an opportunity to connect the two efforts in order to maximize shared and complimentary results. States and communities that couple successful job attraction tools with burgeoning resident attraction tools should see not only direct positive fiscal effects but also broader advancements associated with growing job markets and growing populations driven by ripple effects that extend well beyond the direct impacts.

States and communities recognize that there is value (both economic and societal) in being the home to both residents and jobs. Where people live and where people work are inextricably linked. Communities and companies fail to exist without people. As such, states and communities have developed tools to encourage – incentivize – the attraction of jobs and residents.

- Incentive tools to encourage job creation date back to 1979^a when Maine enacted a job creation tax credit. Over the following decades, such tools have become widespread throughout the U.S.
- Incentives to attract residents are much newer. Reports of such programs can be found in the early 2010s. The most well-known program began in Tulsa, Oklahoma in 2018.

In a time of unprecedented worker mobility, flexible work arrangements, and emerging industries, it is critical that states and communities align efforts and tools to attract both jobs and people. Like most things in economic development, this is strategy of 'and' not 'or'. Attracting new jobs and attracting new residents, respectively and collectively, create positive outcomes and generate significant economic value. When both are done well, communities can realize outcomes that increase economic output, enhance tax revenues and tax bases, grow school enrollments, and diversify neighborhoods.

Existing research allows us to estimate the fiscal impacts of attracting both jobs and residents. In order to standardize the estimates here, we will use wages as the basis for calculating the fiscal effects.

- A new **resident** who earns wages naturally creates a fiscal impact on state and local governments by paying income, property, sales, and other taxes. Research suggests that U.S. households pay on average 7.2% 11.4% of their income in state and local taxes each year (paid to the state/locality of residence). Households earning between \$80,400 and \$138,300 annually average 10.3%, which we will use for the calculations here.
- Research indicates that a **business** in a "base" industry (those that create wealth by principally selling goods/services outside of the area in which they are produced) pays taxes to state and local governments that equate to a present value^c of approximately 4.74% of the company's value-added

(paid to the state/locality where the business facility is located). Value-added is a measure of the economic value that a company adds to its products and services before offering them to customers; put another way, value-added is the company's contribution to gross domestic product (GDP).

 Fortunately, we can connect value-added to wages. Wages are known to represent approximately half of company value-added^e. Therefore, multiplying the wages of a business by 2 produces an estimated value-added amount for the company.

These estimates do not account for secondary indirect and induced impacts. They capture only the direct fiscal impacts – taxes paid – by the resident and business operation respectively.

The following table displays the estimated state & local taxes paid over a 20-year period by residents and a business, respectively, using the same inputs: 100 residents/jobs with annual wages of \$100,000.

		Total Ann	ual Wages	Value-	Added	Resident State & I	ocal Taxes paid	Business State & Lo	ocal Taxes paid	
		based on scena	rio assumptions	estimated a	it 2x ^e wages	estimated at 10	3% ^b of wages	per Bartik ^d model (w	w 3% discount rate)	
		Gross	Present Value	Gross	Present Value	Gross	Present Value	Gross	Present Value	
Yr	1	\$ 10,000,000	\$ 10,000,000	\$ 20,000,000	\$ 20,000,000	\$ 1,030,000	\$ 1,030,000	\$ 1,598,000	\$ 1,598,000	
Yr	2	\$ 10,000,000	\$ 9,708,738	\$ 20,000,000	\$ 19,417,476	\$ 1,030,000	\$ 1,000,000	\$ 860,000	\$ 834,951	
Yr	3	\$ 10,000,000	\$ 9,425,959	\$ 20,000,000	\$ 18,851,918	\$ 1,030,000	\$ 970,874	\$ 860,000	\$ 810,632	
Yr	4	\$ 10,000,000	\$ 9,151,417	\$ 20,000,000	\$ 18,302,833	\$ 1,030,000	\$ 942,596	\$ 860,000	\$ 787,022	
Yr	5	\$ 10,000,000	\$ 8,884,870	\$ 20,000,000	\$ 17,769,741	\$ 1,030,000	\$ 915,142	\$ 860,000	\$ 764,099	
Yr	6	\$ 10,000,000	\$ 8,626,088	\$ 20,000,000	\$ 17,252,176	\$ 1,030,000	\$ 888,487	\$ 860,000	\$ 741,844	
Yr	7	\$ 10,000,000	\$ 8,374,843	\$ 20,000,000	\$ 16,749,685	\$ 1,030,000	\$ 862,609	\$ 858,000	\$ 718,561	
Yr	8	\$ 10,000,000	\$ 8,130,915	\$ 20,000,000	\$ 16,261,830	\$ 1,030,000	\$ 837,484	\$ 858,000	\$ 697,633	
Yr	9	\$ 10,000,000	\$ 7,894,092	\$ 20,000,000	\$ 15,788,185	\$ 1,030,000	\$ 813,092	\$ 858,000	\$ 677,313	
Yr	10	\$ 10,000,000	\$ 7,664,167	\$ 20,000,000	\$ 15,328,335	\$ 1,030,000	\$ 789,409	\$ 858,000	\$ 657,586	
Yr	11	\$ 10,000,000	\$ 7,440,939	\$ 20,000,000	\$ 14,881,878	\$ 1,030,000	\$ 766,417	\$ 856,000	\$ 636,944	
Yr	12	\$ 10,000,000	\$ 7,224,213	\$ 20,000,000	\$ 14,448,426	\$ 1,030,000	\$ 744,094	\$ 856,000	\$ 618,393	
Yr	13	\$ 10,000,000	\$ 7,013,799	\$ 20,000,000	\$ 14,027,598	\$ 1,030,000	\$ 722,421	\$ 856,000	\$ 600,381	
Yr	14	\$ 10,000,000	\$ 6,809,513	\$ 20,000,000	\$ 13,619,027	\$ 1,030,000	\$ 701,380	\$ 856,000	\$ 582,894	
Yr	15	\$ 10,000,000	\$ 6,611,178	\$ 20,000,000	\$ 13,222,356	\$ 1,030,000	\$ 680,951	\$ 856,000	\$ 565,917	
Yr	16	\$ 10,000,000	\$ 6,418,619	\$ 20,000,000	\$ 12,837,239	\$ 1,030,000	\$ 661,118	\$ 856,000	\$ 549,434	
Yr	17	\$ 10,000,000	\$ 6,231,669	\$ 20,000,000	\$ 12,463,339	\$ 1,030,000	\$ 641,862	\$ 856,000	\$ 533,431	
Yr	18	\$ 10,000,000	\$ 6,050,164	\$ 20,000,000	\$ 12,100,329	\$ 1,030,000	\$ 623,167	\$ 856,000	\$ 517,894	
Yr	19	\$ 10,000,000	\$ 5,873,946	\$ 20,000,000	\$ 11,747,892	\$ 1,030,000	\$ 605,016	\$ 856,000	\$ 502,810	
Yr	20	\$ 10,000,000	\$ 5,702,860	\$ 20,000,000	\$ 11,405,721	\$ 1,030,000	\$ 587,395	\$ 856,000	\$ 488,165	
		\$ 200,000,000	\$ 153,237,991	\$ 400,000,000	\$ 306,475,982	\$ 20,600,000	\$ 15,783,513	\$ 17,890,000	\$ 13,883,904	

This modeling suggests 100 new residents will pay \$20.6 million in state and local taxes over a 20-year period, or a present value of \$15.8 million. Over that same period, a business with 100 employees will pay \$17.9 million or a present value of \$13.9 million.

Now let us assume the state/local government provided incentives to catalyze the attraction of 100 new residents and the creation of 100 new jobs, respectively.

- For residents, we will assume the incentive is a cash payment of \$5,000^f made to each individual in Year 1.
- For jobs, we will rely on existing research^d to estimate incentives over the 20-year period. This research attempts to accurately allocate the incentives over the 20-year period for a "standard deal" in the U.S. The components of the 20-year incentives package present value are:

 - research & development tax credits 11%

The table below displays the effects (reduction) in fiscal impacts for state and local taxes due to the deployment of incentives to create the outcomes.

		Re	sident	State & Local	Taxes	paid after ince	entives			Business Stat	te & L	ocal Taxes paid	after ii	ncentives	
		incentive = \$5,000 per new resident								incentive = per Bartik ^d					
		Gross		Incentive		Net	Net	Present Value		Tax PV		Incentive PV	Net	Present Value	
Yr	1	\$ 1,030,000	\$	(500,000)	\$	530,000	\$	530,000	\$	1,598,000	\$	(708,000)	\$	890,000	
Yr	2	\$ 1,030,000	\$	-	\$	1,030,000	\$	1,000,000	\$	834,951	\$	(328,155)	\$	506,796	
Yr	3	\$ 1,030,000	\$	-	\$	1,030,000	\$	970,874	\$	810,632	\$	(309,171)	\$	501,461	
Yr	4	\$ 1,030,000	\$	-	\$	1,030,000	\$	942,596	\$	787,022	\$	(289,185)	\$	497,837	
Yr	5	\$ 1,030,000	\$	-	\$	1,030,000	\$	915,142	\$	764,099	\$	(266,546)	\$	497,553	
Yr	6	\$ 1,030,000	\$	-	\$	1,030,000	\$	888,487	\$	741,844	\$	(232,904)	\$	508,939	
Yr	7	\$ 1,030,000	\$	-	\$	1,030,000	\$	862,609	\$	718,561	\$	(216,071)	\$	502,491	
Yr	8	\$ 1,030,000	\$	-	\$	1,030,000	\$	837,484	\$	697,633	\$	(196,768)	\$	500,864	
Yr	9	\$ 1,030,000	\$	-	\$	1,030,000	\$	813,092	\$	677,313	\$	(184,722)	\$	492,591	
Yr	10	\$ 1,030,000	\$	-	\$	1,030,000	\$	789,409	\$	657,586	\$	(174,743)	\$	482,843	
Yr	11	\$ 1,030,000	\$	-	\$	1,030,000	\$	766,417	\$	636,944	\$	(59,528)	\$	577,417	
Yr	12	\$ 1,030,000	\$	-	\$	1,030,000	\$	744,094	\$	618,393	\$	(56,349)	\$	562,044	
Yr	13	\$ 1,030,000	\$	-	\$	1,030,000	\$	722,421	\$	600,381	\$	(42,083)	\$	558,298	
Yr	14	\$ 1,030,000	\$	-	\$	1,030,000	\$	701,380	\$	582,894	\$	(40,857)	\$	542,037	
Yr	15	\$ 1,030,000	\$	-	\$	1,030,000	\$	680,951	\$	565,917	\$	(39,667)	\$	526,250	
Yr	16	\$ 1,030,000	\$	-	\$	1,030,000	\$	661,118	\$	549,434	\$	(32,093)	\$	517,341	
Yr	17	\$ 1,030,000	\$	-	\$	1,030,000	\$	641,862	\$	533,431	\$	(31,158)	\$	502,273	
Yr	18	\$ 1,030,000	\$	-	\$	1,030,000	\$	623,167	\$	517,894	\$	(30,251)	\$	487,643	
Yr	19	\$ 1,030,000	\$	-	\$	1,030,000	\$	605,016	\$	502,810	\$	(29,370)	\$	473,440	
Yr	20	\$ 1,030,000	\$	-	\$	1,030,000	\$	587,395	\$	488,165	\$	(28,514)	\$	459,651	
		\$ 20,600,000	\$	(500,000)	\$	20,100,000	\$	15,283,513	\$	13,883,904	\$	(3,296,136)	\$	10,587,768	

Each scenario generates significant state and local tax payments with positive return on investment. The investment in new residents appears to be more efficient, driven primarily by the lower incentive amount.

	Present Value of Incentives ("Investment")	Present Value of tate & Local Taxes after Incentives ("Net Return")	Return on Investment (Net Return / Investment)
Residents	\$ 500,000	\$ 15,283,513	30.57
Jobs	\$ 3,296,136	\$ 10,587,768	3.21

(The present value of the resident incentive is the same as the gross amount because the incentive is assumed to occur in year 1.)

As noted above, this discussion should be viewed through the lens of 'and' not 'or'. Rather than attracting residents and jobs irrespective from each other, what if the efforts were focused on the same event – a state/community uses incentives to attract new jobs and also uses incentives to attract new residents to grow the area's labor market to support the increased demand for employees? The positive returns noted above are specific to the resident and the business; therefore, they can be combined. Research indicates that when the number of available jobs in an area increases, so does the population of the area. Within a few years of the new job creation, the local population goes up (in-migration) by over 80 percent^g of the number of new jobs in order to meet the increased labor demand. Thus, we will assume 85% of the new residents can be tied to the specific event. In order to be consistent, we will also assume that 85% of the business's positive tax impact. The use of resident and business incentives for this specific event yield a combined return of nearly 6x.

		P	Present Value of Incentives ("Investment")	("	resent Value of State & Local Taxes after Incentives Net Return") at 5% direct effect	Return on Investment (Net Return / Investment)
Percent of jobs filled by new residents	85%	\$	500,000	\$	12,990,986	25.98
Percent of jobs created due to incentives	85%	\$	3,296,136	\$	8,999,603	2.73
Combined		\$	3,796,136	\$	21,990,589	5.79

The scenarios above measure only fiscal effects – the state and local government dollars deployed as incentives and the dollars expected to be paid via state and local taxes. The scenarios do <u>not</u> account for ripple effects – indirect and induced impacts in the economy. The following information provides general context concerning the order of magnitude of ripple effects:

- **Residents** create value in myriad ways^h beyond simply paying taxes. While estimating a general dollar value per resident is difficult, we can make some inferences. On average, Americans spend 80%ⁱ of their total income on "consumption" (buying goods and services). Of that expenditure, much of it is presumably spent locally, which creates local economic impact through the demand for and purchase of public and private goods and services. A few examples^j of these consumer expenditures include: healthcare (20% of dollars spent), recreation (9%), groceries food & beverage (8%), restaurants (6%), utilities (3%), clothing (3%), and professional services (1%). Additionally, there is evidence that new residents who participate in a resident attraction program demonstrate an increase in valuable social actions that have indirect economic value, such as volunteering^k.
- For **businesses**, the presence of a company/industry in a location has a multiplier effect. Operations in base industries are known to have the highest multipliers. Jobs multipliers for manufacturing industries are commonly found to be in the range of 2 3; some high-tech industries can have multipliers as high as 6^l. A jobs multiplier of 2.5 would mean for one job created at the company, the broader economy would add 1.5 new jobs.

The data indicate that on average incentive programs to attract jobs and residents are successful. From a return on investment perspective, each type of effort generates state and local tax revenues that far exceed the value of the incentives applied. The success of any economic development program is always determined by smart and strategic design and implementation. It is clear than an opportunity exists to make these successful programs even more successful by finding ways to align and integrate the efforts to generate increasingly robust outcomes.

About the author

Jacob Everett is the Founder of Corsa Strategies, which provides site selection and incentive advisory services across North America as well as leadership in renewable energy. Jacob is a Certified Economic Developer (CEcD) accredited by the International Economic Development Council and has nearly 15 years of experience working at the intersection of the public and private sectors. Focused on all forms of private sector growth and investment, Corsa Strategies provides advisory services to businesses to optimize location strategies, maximize financial performance of facilities and investment activities, and facilitate engagement with the public sector to enable growth. Jacob's work consulting private sector clients spans North America and has included companies of all sizes and industries. He writes and speaks nationally on site selection, real estate, economic development, and energy.

Endnotes

This paper looks at the investment made to catalyze (incentives) the attraction of residents/jobs and the state & local tax revenues directly generated, respectively, by those residents and the facility at which the workers are employed. This analysis does not attempt to evaluate the effectiveness of state and local tax systems; in other words, government's "cost to serve" (public safety, infrastructure, education, etc.) is not contemplated here. We'll leave that debate to others.

For ease of demonstration, the wage level (and by extension the value-added level) is held static over the 20-year period. Realistically, wages would naturally migrate upward over time. Applying annual wage increases would certainly increase the ROI level for resident attraction programs. The appropriateness of applying similar annual increases to the jobs attraction modeling is unclear due to the complexity of the underlying research that is paper relies upon; it is expected that annual increases (if appropriate) to undiscounted valued-added would either slightly increase jobs attraction ROI or leave it the same.

- a Chirinko, Robert S., Daniel J. Wilson. 2016. "Job Creation Tax Credits, Fiscal Foresight, and Job Growth: Evidence from U.S. States." Federal Reserve Bank of San Francisco. https://fraser.stlouisfed.org/title/7038/item/639335
- b Davis, Carl et al. 2024. "Who Pays? A Distributional Analysis of the Tax Systems in All 50 States, 7th edition."
 Institute on Taxation and Economic Policy.
 https://itep.org/whopays-7th-edition
 Data is based on "tax units" which are paragraph or groups of people who file one tax returns this is similar to but
 - Data is based on "tax units" which are persons or groups of people who file one tax return; this is similar to but not precisely the same as "households" as defined by the Census Bureau.
 - The 10.3% (of income) figure used here is comprised of 3.9% sales tax, 3.1% income tax, 3.2% property tax, and 0.1% other state/local tax.
- c All present values here are created using a twenty-year period with a 3% discount rate.
- d Bartik, Timothy J. 2017. "A New Panel Database on Business Incentives for Economic Development Offered by State and Local Governments in the United States." Prepared for the Pew Charitable Trusts. https://research.upjohn.org/reports/225

The research model covers 33 states representing 92% of US GDP.

The author establishes that on average companies pay state and local taxes that amount to a present value totaling 4.74% of the companies' present value value-added. This metric is established using a 12% discount rate over a 20-year period; this discount rate was chosen to reflect how the private sector makes investment decisions. The author goes on to note that, "The research literature on public finance argues that in analyzing the benefits or costs of public policies, the real social discount rate should be 3 percent annually or less." Therefore, the calculations here use a 3% discount rate. This lower discount rate changes the 4.74% metric to 4.53%. The 4.53% figure is comprised of 1.29% sales tax, 0.98% income tax, and 2.26% property tax.

- e U.S. Bureau of Economic Analysis, "Table 1.14. Gross Value Added of Domestic Corporate Business in Current Dollars and Gross Value Added of Nonfinancial Domestic Corporate Business in Current and Chained Dollars". (see data for nonfinancial corporate business)

 https://apps.bea.gov/iTable/?reqid=19&step=3&isuri=1&1921=survey&1903=55#eyJhcHBpZCI6MTksInN0ZXBzljpbMswyLDNdLCJkYXRhljpbWyJOSVBBX1RhYmxlX0xpc3QiLCI1NSJdLFsiQ2F0ZWdvcmllcylsllN1cnZleSJdXX0=Also, Bartik, Timothy J. 2018.
- f Many programs exist across the U.S., each providing unique offerings to attract new residents. Most offer packages valued between \$5,000 and \$15,000. Some packages provide purely cash value while others combine cash value with additional perks such as memberships to local museums, coworking spaces, or golf courses. https://www.businessinsider.com/us-cities-pay-people-move-incentives
- g Bartik, Timothy J. 2018. "What Works to Help Manufacturing-Intensive Local Economies?" Upjohn Institute Technical Report No. 18-035. W.E. Upjohn Institute for Employment Research. https://doi.org/10.17848/tr18-035
- h "Measuring the Impact of New Residents." 2020. Institute for Decision Making, University of Northern Iowa.

 Access archive PDF here. (Original URL https://idm.uni.edu/measuring-impact-new-residents no longer active)
- i U.S. Bureau of Economic Analysis, "Table 2.1. Personal Income and Its Disposition."
 <a href="https://apps.bea.gov/iTable/?reqid=19&step=3&isuri=1&1921=survey&1903=76&gl=1*17p4apz*_ga*MTgxMTcwN_DYzOS4xNzAyOTQzMjk1*_ga_J4698JNNFT*MTcwOTIyNzU0NS4xMi4xLjE3MDkyMjc2NjluNjAuMC4w#eyJhcHBp_ZCI6MTksInN0ZXBzljpbMSwyLDMsM10sImRhdGEiOltbIk5JUEFfVGFibGVfTGlzdCIsljU4II0sWyJDYXRIZ29yaWVzI_iwiU3VydmV5II0sWyJGaXJzdF9ZZWFyliwiMjAxNCJdLFsiTGFzdF9ZZWFyliwiMjAyMyJdLFsiU2NhbGUiLCItOSJdLFsiU2VyaWVzliwiQSJdXX0=""https://apps.bea.gov/iTable/?reqid=19&step=3&isuri=1&1921=survey&1903=76&gl=1*17p4apz*_ga*MTgxMTcwN_DYzOS4xNIGENTAL_PASTAN_PAST

- j U.S. Bureau of Economic Analysis, "Table 2.5.5. Personal Consumption Expenditures by Function."
 https://apps.bea.gov/iTable/?reqid=19&step=3&isuri=1&1921=survey&1903=76&_gl=1*17p4apz*_ga*MTgxMTcwN_DYzOS4xNzAyOTQzMjk1*_ga_J4698JNNFT*MTcwOTIyNzU0NS4xMi4xLjE3MDkyMjc2NjluNjAuMC4w#eyJhcHBp_ZCI6MTksInN0ZXBzljpbMSwyLDMsM10sImRhdGEiOltbIk5JUEFfVGFibGVfTGlzdCIsIjc0Il0sWyJDYXRIZ29yaWVzIiwiU3VydmV5Il0sWyJGaXJzdF9ZZWFyliwiMjAxNCJdLFsiTGFzdF9ZZWFyliwiMjAyMiJdLFsiU2NhbGUiLCItOSJdLFsiU2VyaWVzliwiQSJdXX0=
- k Choudhury, Prithwiraj, Evan Starr, Thomaz Teodorovicz. 2022. "Work-from-anywhere as a public policy: 3 findings from the Tulsa Remote program." The Brookings Institution.

 https://www.brookings.edu/articles/work-from-anywhere-as-a-public-policy-three-findings-from-the-tulsa-remote-program/
- Bartik, Timothy J. 2018. "Who Benefits From Economic Development Incentives? How Incentive Effects on Local Incomes and the Income Distribution Vary with Different Assumptions about Incentive Policy and the Local Economy." Upjohn Institute Technical Report No. 18-034. W.E. Upjohn Institute for Employment Research. https://doi.org/10.17848/tr18-034