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EMPLOYMENT RESEARCH

Place-Based Consequences
of Person-Based Transfers*Brad J. Hershbein*

ARTICLE HIGHLIGHTS

■ *Local labor markets that lose greater shares of employment during recessions suffer persistent relative decreases in earnings per capita.*

■ *The social safety net responds, and areas with 5 percent greater employment losses experience per-capita government transfers 2.5 percent higher even a decade later.*

■ *These transfers replace about 25 percent of lost earnings in the long term, and much of this is through retirement and disability (Social Security) or health (Medicare and Medicaid).*

■ *The social safety net thus helps affected places as well as people, but the long-term assistance does little to help with needed skills development or job creation.*

As the nation continues to recover from the economic recession caused by the COVID-19 pandemic, Congress continues to debate how to extend the social safety net, even after unprecedented (and temporary) responses over the past 18 months. An important part of the debate is whether government assistance should expand beyond what is traditionally thought of as social insurance—transfers like the Supplemental Nutrition Assistance Program (SNAP, also known as food stamps), Temporary Assistance to Needy Families (TANF), and unemployment insurance (UI)—to also cover programs that increase skills development, such as employment training and tuition-free community college. This matters because previous research has shown that areas that were particularly hard hit during a recession can suffer long-lasting declines in employment rates and per-capita earnings relative to areas that escaped the recession unscathed (Hershbein and Stuart 2020). With parts of the country heavily reliant on tourism still lagging behind in their economic recovery, it is an open question how well the social safety net—or government transfers more generally—respond to recessions not just in the short term but over longer horizons as well. If transfers remain elevated persistently, then places that experience only mild recessions implicitly subsidize through the tax code places that experience bad recessions, even as economic opportunity remains depressed in these latter places.

In forthcoming work, my coauthor Bryan A. Stuart and I examine the response of the social safety net to place-specific shifts in economic activity arising from recessions over the past 50 years. Drawing on annual data we have harmonized for 363 metropolitan areas, we estimate how average receipt of different government transfer programs, on a per-capita basis, evolve for up to a decade after each of the

five recessions between the 1970s and the Great Recession. (We cannot yet investigate the COVID recession.)

We find that person-based transfer programs generate a substantial amount of place-based redistribution. Metropolitan areas that experience more severe employment losses during a recession face lasting reductions in employment and

A typically-sized metro of 260,000 people that suffers a worse recession will receive over half a billion dollars more in transfers over the next decade.

earnings per capita, but they also receive lasting increases in transfers per capita. Our estimates imply that a metro area experiencing a 5 percent greater employment loss during the recession has total transfers per capita 2.5 percent higher nearly a decade after the recession ended. For a metro area of typical size, about 260,000 residents, this translates into more than half a billion dollars of transfers over this time period. Moreover, most of these transfers are not from what we think of as either employment-related social insurance or the traditional safety net of means-tested programs. Although the former (UI) does respond in the short term, the increase fades away relatively quickly; the latter safety net programs show a more sustained rise, but they are relatively small, accounting for only a tenth of total transfers. Instead, large entitlement programs including Social Security, Medicare, and Medicaid continue to grow after a recession and account for nearly all of the long-term increase. Education and training programs, which might help boost skills and future earnings, barely respond at all.

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Place-Based Consequences of Person-Based Transfers

Government Transfers in the United States

The United States transfers considerable sums of money to individuals through various programs. As of 2017, and across 363 metro areas accounting for more than 80 percent

Total transfers replace about one-fifth of lost earnings soon after the Great Recession ended in 2009, but this share rises over time.

of the total population, per-person transfers averaged nearly \$8,300 annually. This represents a quadrupling since 1970, even after adjusting for inflation, and over 15 percent of average income. As shown in Figure 1, much of these transfers consist of retirement and disability insurance—Social Security, essentially—and medical programs including Medicare and Medicaid. The latter category has

grown especially quickly, becoming the largest category around 2000 and today consisting of almost half of total transfers. By comparison, income maintenance or means-tested programs (primarily TANF and its predecessor, the Earned Income Tax Credit, SNAP, and Supplemental Security Income) equal about 10 percent of total transfers on average. Unemployment insurance is much smaller on average, though it tends to rise after recessions and job losses. Transfers for veterans (pensions and VA coverage) and education and training (Pell Grants and workforce training) are quite small on the whole, in part because their coverage is much more limited than the other programs.

Our Analysis

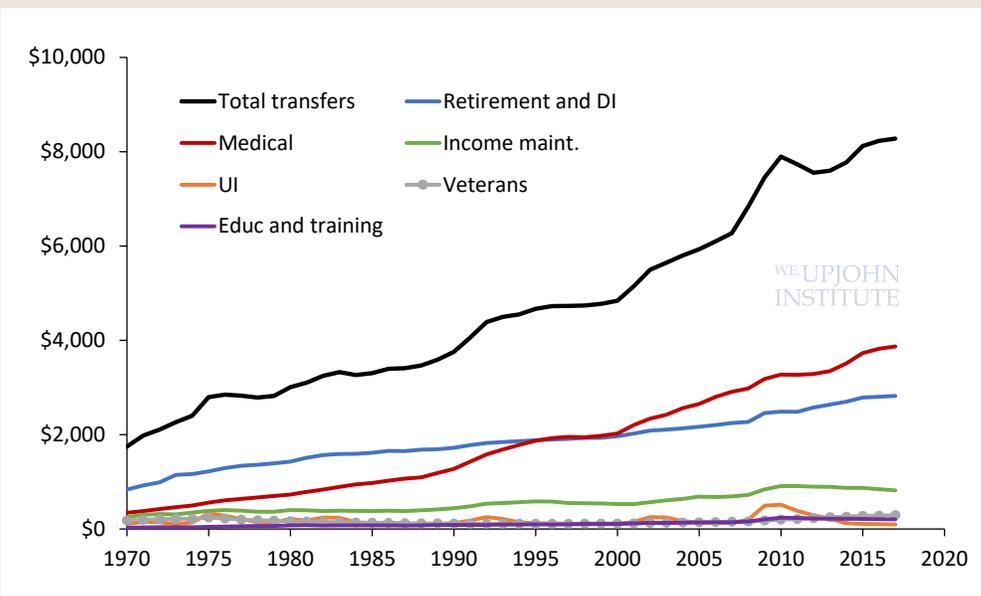
To investigate how employment losses during a recession affect per-capita transfers, we compare how these transfers evolve each year between metro areas that experienced different-sized employment changes, or shocks,

during the recession. We separately analyze five national recessions: those in 1973–1975, 1980–1982 (we combine 1980 and 1982 in this “double-dip” recession), 1990–1991, 2001, and 2007–2009. Our approach assumes that the path of per-capita transfers would have evolved similarly between areas in the absence of differing recession severity. To make this assumption more plausible, we control for several characteristics of the metro areas. These include pre-recession population growth for different age groups to control for demographic differences and (nine) census division indicators so that we are implicitly comparing metro areas within the same division of the country. In both of these cases, we allow these controls to vary by each year we observe transfers, thus controlling for age dynamics (such as the differential aging of the population) and gradual shifts in economic activity, such as the rise of the sunbelt. We further control for metro area characteristics that don’t vary over time, so our results capture changes relative to a metro’s own pre-recession path, vis-à-vis the changes in another metro that differed in recession intensity.

Results

Figure 2 shows how per-capita transfers respond in metros with a 1 percent greater employment loss during the respective recession. The horizontal axis measures years since the recession ends (more specifically, when national employment bottomed out; recessions typically begin two years earlier). Thus, the left-most part of the figure shows the period before the recession begins. That values are close to zero indicates that differences in transfers between areas that will experience severe recessions and those that will experience mild recessions are small before the recession begins, in line with expectations. Once the recession begins, however, transfers

Figure 1 Per-Capita Transfers Have Risen Sharply over Time



NOTE: The figure reports national annual totals, per person, of different government transfers by category across 363 metropolitan areas (CBSAs), together accounting for about 80 percent of the U.S. population. Amounts are in dollars per person, inflation-adjusted to 2017.

SOURCE: Author’s tabulations of U.S. Bureau of Economic Analysis data.

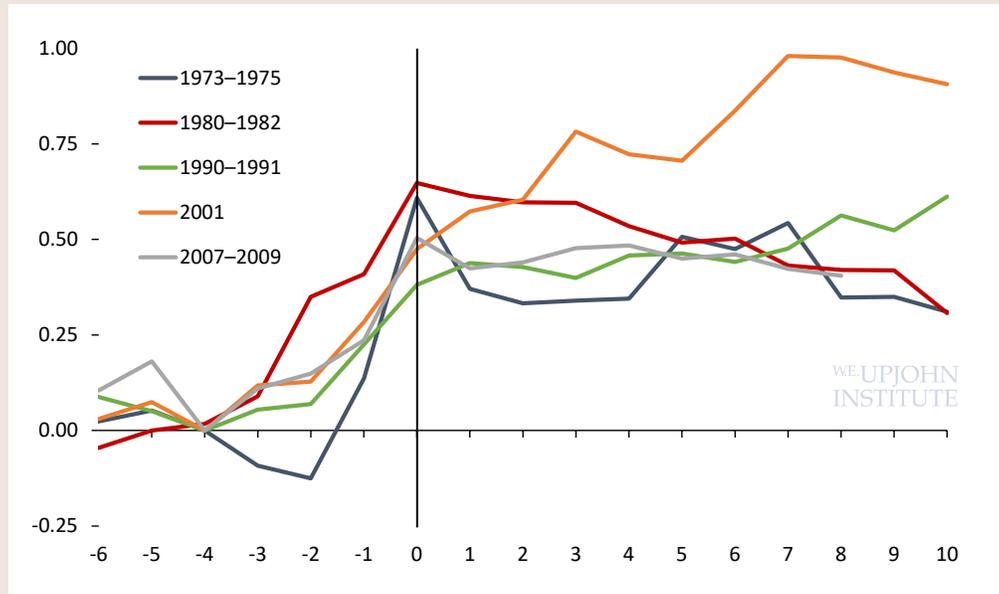
rise sharply, and reach a value of about 0.5 by recession's end; this means that a 1 percent greater loss in metro employment during the recession implies a 0.5 percent greater increase in per-capita transfers. Moreover, even after the recession is over, each line stays elevated above zero and some even continue to grow. Therefore, even a decade later transfers are higher in metro areas that experienced a more severe recession: across recessions, a 5 percent greater recession-induced employment loss on average implies 2.5 percent greater transfers per person.

How much of the persistent loss in per-capita earnings do these transfers replace, and which types of transfers account for this sustained rise? We address these questions for the Great Recession in Figure 3. Total transfers replace about one-fifth of lost earnings soon after the Great Recession ended in 2009, but this share rises over time (partly because earnings also somewhat recover over time while transfers stay about the same). By 2017, eight years after the recession's end, transfers replace about 60 percent of earnings losses that year. (The pattern varies somewhat for previous recessions, but the replacement share tends to rise over time.) Figure 3 also shows that while UI shows a slight bump near the end of the recession, the effect fades, and medical and retirement and disability programs (Medicare, Medicaid, and Social Security) account for the vast majority of the long-term rise. Other programs, including traditional safety net ones, contribute less, especially over time.

Discussion and Implications

These results paint a nuanced picture of the response of the safety net. Programs that receive the greatest attention in discussions of countercyclical policy—such as unemployment insurance, TANF, and SNAP—play little role in offsetting the long-run relative earnings losses in metro areas that experience more

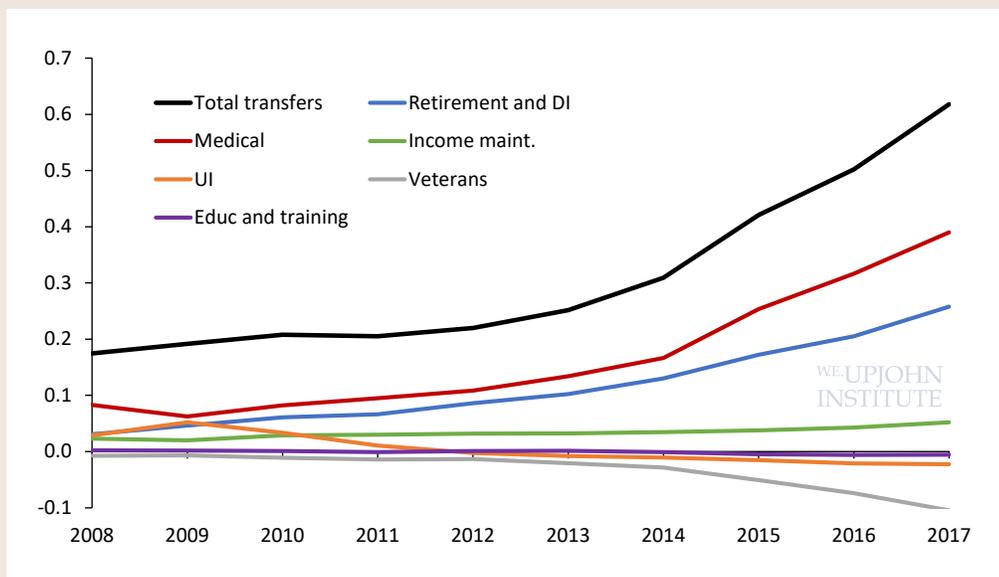
Figure 2 Transfers Remain Elevated after the Recession Ends



NOTE: The figure reports estimates of the impact of a 1 percent greater employment loss on the percent change in per-capita transfers for the years surrounding a recession, for each of five recession. The vertical black line at 0 indicates the end of the recession—when employment has bottomed out; thus, positive numbers on the horizontal axis indicate years since the recession ended while negative numbers count backwards (most recessions begin at t=2). A value of 0.5 on the vertical axis means that a 1 percent greater employment loss results in a 0.5 percent greater increase in per-capita transfers.

SOURCE: Author's calculations of U.S. Bureau of Economic Analysis and other data.

Figure 3 Transfers Replace Only Part of Lost Earnings



NOTE: The figure reports how the increased transfers from Figure 2 compare to losses in per-capita earnings by year and transfer type. For example, in 2010 the increase in total transfers from a 1 percent greater recession-induced employment loss replaced about 20 percent of per-capita earnings losses that year from the same recession-induced employment loss.

SOURCE: Author's calculations of U.S. Bureau of Economic Analysis and other data.

Place-Based Consequences of Person-Based Transfers

severe recessions. On the other hand, programs such as Social Security retirement, Disability Insurance, Medicare, and Medicaid partially insure areas against the longer-term effects of recessions. On average, transfers offset 25 percent of the decline in earnings in metro areas hit harder by recessions. Furthermore, federal transfers that are nominally person-based provide implicit, persistent, and underappreciated geographic transfers from economically more successful places to economically less successful places.

Because the long-run consequences of recessions on local labor markets are not yet widely appreciated, there has been little discussion of whether the existing structure of the social safety net constitutes an appropriate policy response, not just for individuals but for communities as a whole. An important direction for future research is to study how nominally person-based transfers interact with place-based policies, such as economic development block grants and place-based scholarships, in affecting efficiency and equity of the overall system of government transfers. One important takeaway from our results is that the most responsive transfer programs in the current system are unlikely to encourage labor supply, skill development, or job creation, which could be essential factors in helping hard-hit metro areas from falling behind economically.

Reference

Hershbein, Brad J., and Bryan A. Stuart. 2020. "The Enduring Local Harm from Recessions." Upjohn Institute Policy Brief. Kalamazoo, MI: W.E. Upjohn Institute. https://research.upjohn.org/up_policybriefs/25/.

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Economic Costs and Benefits of Tuition-Free College in Illinois

Timothy J. Bartik, Michelle Miller-Adams, Brian Pittelko, and Bridget Timmeney

Why should states invest in free college for their residents? With [returns to college degrees high](#) and [most new jobs requiring a postsecondary degree or credential](#), individual motivations for college-going are easy to discern. As more states create free-college pathways for their residents—and as more will be asked to do so if the [Biden administration's tuition-free college plan](#) becomes law—policymakers should recognize that free college also generates substantial economic and fiscal returns for the state.

This article presents research findings on the economic and fiscal impacts from a hypothetical tuition-free college program in Illinois. The research was carried out with financial support from the Joyce Foundation and the cooperation of the Governor's Office of the State of Illinois. More information on how these findings were generated can be found in our [cost estimate](#) and [economic benefits](#) reports to the state.

Economic returns to free college come in the form of higher earnings for workers with degrees and spillover benefits for other residents. Fiscal returns occur when projected tax

revenues exceed the cost of a free-college program. Of course, there are many other benefits to increasing educational attainment. Employers have access to a better-trained workforce, which spurs innovation and productivity. Higher educational attainment can also reduce crime and substance abuse, help create more stable families, and lead to better outcomes for the children of college graduates. These impacts, however, are hard to quantify, so we focus here on the direct earnings effects for graduates and spillover effects for other residents.

For this project, we modeled two versions of tuition-free college: one model covers the community college sector only and the other includes both two-year and four-year public institutions. Both adopt a last-dollar structure in which a student's Pell Grants are used first, with the state grant closing any remaining gap in tuition and fees.¹

A free-tuition program in Illinois would generate economic and fiscal benefits that far exceed its costs, although the fiscal benefits would not be realized immediately. The less

ARTICLE HIGHLIGHTS

- *Free college generates substantial economic and fiscal returns for the state.*
- *The combined two-year and four-year program, run for just the years 2021–2030, would increase Illinois residents' total earnings by \$44.7 billion.*
- *We find that a two-year degree yields earnings gains per individual of between \$154,000 and \$182,000 over their lifetime, while a four-year degree yields an earnings gain of between \$671,000 and \$793,000.*
- *We estimate spillover effects on other Illinois residents at 86 percent of the direct effect.*

expensive program covering only two-year college yields positive returns more quickly, but the returns are not as high as they are for the more expansive (and expensive) program.

Free college leads to more college graduates. Depending on its structure, tuition-free college will lead more Illinois residents to complete either a two-year program, earning an associate degree, or a four-year program, earning a bachelor's degree. Some of these additional graduates will remain in the state. (Our analysis focused only on the higher earnings of graduates who remain in the state. Graduates leaving the state are also better off because of the program, but we are assessing the impact of such a program on the state and thus do not account for benefits to out-migrants.)

People with college degrees or credentials will earn more. Higher degree completion will significantly increase graduates' lifetime earnings. This earnings increase is due to these graduates' higher skills. In our analysis, we focus on the earnings effects for Illinois residents ages 25–79 who remain in state for their entire careers. We find that a two-year degree yields earnings gains per individual of between \$154,000 and \$182,000 over their lifetime, while a four-year degree yields an earnings gain of between \$671,000 and \$793,000. Based on the research literature, we estimate spillover effects on other Illinois residents at 86 percent of the direct effect.

We conclude that the combined two-year and four-year program, run for just the years 2021–2030, would increase Illinois residents' total earnings on aggregate by \$44.7 billion (in 2021 dollars; see Table 1). This is mostly due to more Illinois residents earning bachelor's degrees. The earnings gain from the added bachelor's degrees is \$39.7 billion, versus \$5.0 billion from the added associate degrees. The greater effect from the bachelor's degrees is due to the much greater annual earnings effects of such degrees. The two-year-only tuition

Table 1 Aggregate Illinois Present Value of Increased Earnings for Tuition Subsidy Programs Run from 2021 to 2030

	Combined two-year and four-year program		Two-year program only
	Effect in combined program due to two-year degrees (\$)	Effect in combined program due to four-year degrees (\$)	Effect in two-year-only program due to two-year degrees (\$)
Direct earnings effect on Illinois graduates who stay in Illinois, summed over all graduates considered in cost estimates	2,691,437,646	21,360,458,081	4,335,339,265
Spillover earnings increase for other Illinois workers (86% of direct effect)	2,314,636,375	18,369,993,950	3,728,391,768
Total effect	5,006,074,021	39,730,452,031	8,063,731,033
Total effect of combined two-year and four-year program	44,736,526,052		

subsidy program also has considerable total earnings benefits. Such a program run from 2021 through 2030 would increase the present value of Illinois residents' total earnings by \$8.1 billion.

How does this compare with the costs of operating either of these two tuition subsidy programs from 2021 to 2030? Based on our modeling, a last-dollar, community college–only program would cost \$30 million in its first year, with annual costs rising to \$58 million by the end of the forecast period. A last-dollar program covering both two-year and four-year public in-state institutions would cost \$155 million in its first year, with annual costs rising to \$615 million

in 2030. Present value costs and benefits of the program operated over 10 years, beginning in 2021, are presented in Table 2.

The present value of total earnings benefits from operating either of these two programs far exceeds their costs. For the combined four-year/two-year program, the present value of total earnings benefits, at \$44.7 billion, is over 11 times the present value of costs of around \$4 billion. For the two-year-only program, the present value of total earnings benefits, at a little over \$8 billion, is more than 18 times the present value of program costs of \$438 million.

Table 2 Aggregate Illinois Present Value Costs and Benefits of Tuition-Free College Programs Run from 2021 to 2030

	Combined two-year and four-year program (\$)	Two-year program only (\$)
Present value of costs in 2021 dollars	3,978,294,564	438,274,379
Present value of direct and spillover earnings benefits for Illinois residents	44,736,526,052	8,063,731,033
Extra state and local tax revenue (earnings benefits times 10.63%)	4,755,492,719	857,174,609
Extra state tax revenue (earnings benefits times 5.48%)	2,451,561,628	441,892,461

State residents without college degrees will earn more, too. When a larger share of a state’s residents has a college degree, those without a degree

Earnings gains for other Illinois residents—those who do not get the higher educational attainment due to the tuition subsidy program—are much greater than program costs.

also benefit. Higher wages for educated workers push wages up more generally. A state with more skilled workers will be better able to attract and grow jobs and businesses, which will increase the wages of all the state’s workers. Finally, a state with more skilled workers may develop better amenities, public services, social services, and community well-being, all of which may enhance child development and enhance the long-run earnings of the next generation.

Our modeling shows that the earnings gains for *other* Illinois residents—those who do not get the higher educational

attainment due to the tuition subsidy program—are much greater than program costs. For the combined two-year/four-year program, spillover benefits for other workers are over \$20 billion, which is far greater than program costs of somewhat less than \$4 billion. Similarly, for the tuition subsidies limited to two-year programs, the spillover benefits for other workers are about \$4 billion, which far exceeds program costs of a little over \$400 million. In response to the question “Why should Illinois residents pay tuition subsidies that directly benefit other Illinois residents?”, one answer is that such subsidies will increase overall earnings of many Illinois workers, not just those who get the tuition support.

States will collect more money in taxes than the cost of a free-college program—but not right away. Free-college programs can also be judged by whether their fiscal benefits outweigh their costs. Fiscal benefits come from increased tax revenue as workers’ earnings rise. We model these benefits based on conservative assumptions that estimate a lower bound to their value.

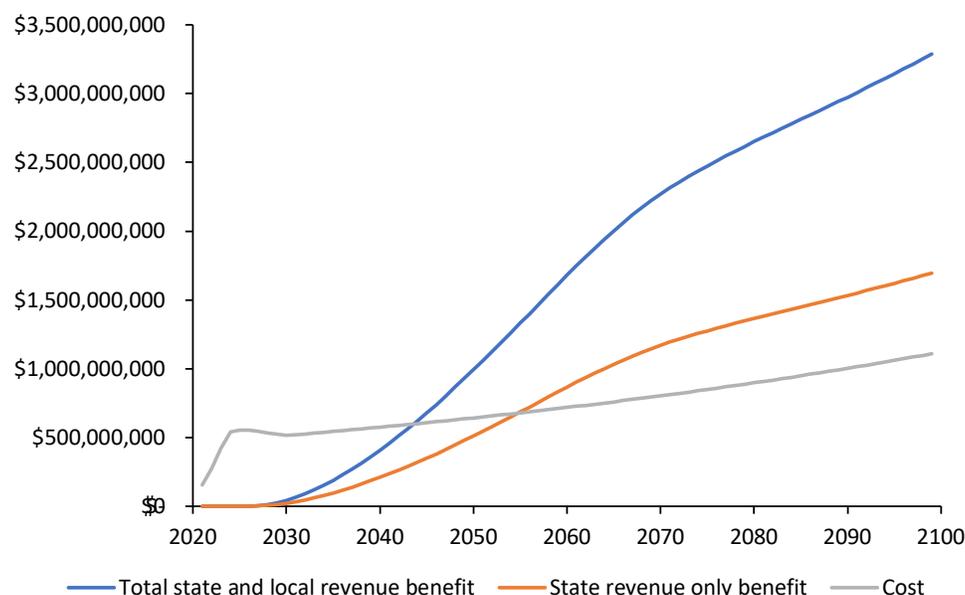
For a combined two-year and four-year program, run from 2021 to 2030, the present value of total state and local revenue collections will be slightly under \$4.8 billion, which exceeds the present value of program costs of around \$4.0 billion. For the tuition subsidy program for only two-year degrees, running from 2021 to 2030, the present value of state and local revenue collections will be almost \$860 million, compared to the present value of program costs of almost \$440 million.

The following figures show a simulation of annual costs and fiscal benefits for a free-college program that continues indefinitely.

As Figure 1 shows, the program starts out with large annual costs, rapidly increasing to around \$500 million per year in 2021 dollars. Annual fiscal benefits are far less because our earnings measures do not start counting earnings effects until graduates reach age 25, and even after that it takes many years before graduates reach their peak earnings years in their forties and early fifties. As a result, from a total state and local revenue standpoint, annual added revenue collected does not exceed annual tuition subsidy program costs until the year 2044, where the state and local revenue line crosses the cost line. From a state revenue only line, annual revenue exceeds costs in the year 2055, where the state revenue line crosses the cost line. However, in either case, on an annual basis, this combined program does eventually generate sufficient revenue that annual revenue for just the state exceeds program costs.

Annual fiscal benefits and costs of a community college-only program from 2021 through 2099 are shown in Figure 2. The fiscal results of this more limited program differ from the more comprehensive program in two ways. First, the annual costs and benefits are much lower, so the short-run net fiscal costs are less, as are the long-run net fiscal benefits. Second, the “crossover” year is five years earlier. For this cheaper program, state and local fiscal benefits exceed costs as of 2039, whereas the

Figure 1 Annual Costs and Fiscal Benefits of Illinois Combined Two-Year/Four-Year Tuition Subsidy Program

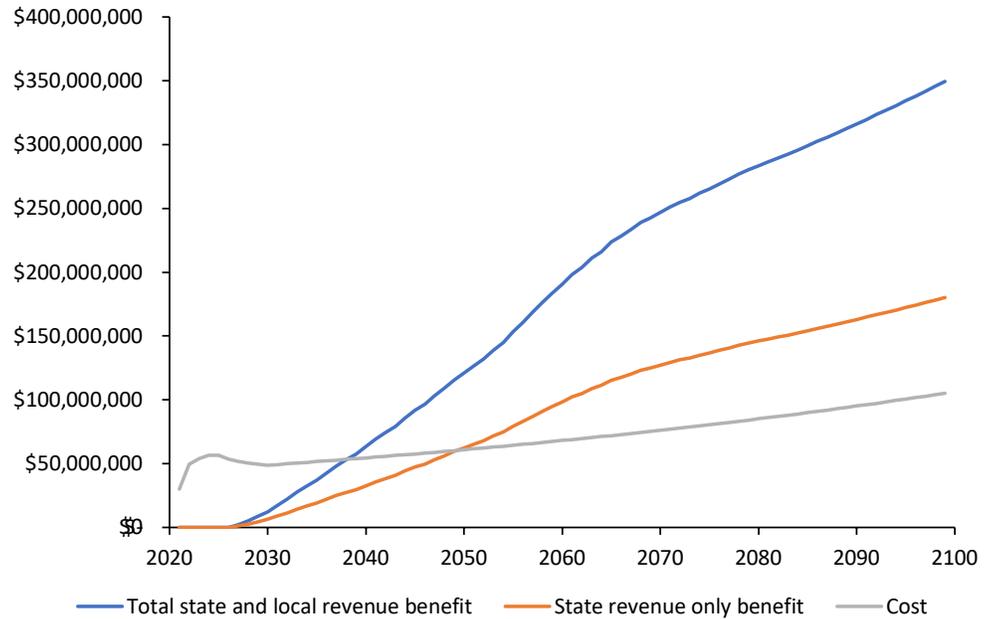


combined two-year and four-year program doesn't have such benefits exceeding costs until 2044. For state revenue only, this cheaper program has fiscal benefits exceeding costs by 2050, compared to 2055 for the more expensive combined program.

Overall, in considering these two programs' economic and fiscal benefits versus costs, two things stand out. First, for either tuition subsidy program, the true cost-benefit picture does not emerge until at least 50 years have passed and an entire generation has gained educational degrees and completed their working careers. Educational investments are long-term investments and cannot be evaluated properly without considering very long-run effects. Second, the cheaper, two-year-only program has somewhat higher ratios of benefits to costs, but the combined program has a much higher level of net benefits.

In sum, an investment by the state in either a two-year-only or a two-year and four-year combined tuition subsidy program will yield benefits far beyond the costs of either program, although not immediately. These benefits result from enhanced earnings by degree recipients and large spillover effects for those without degrees. A sufficient share of this increased income will be paid to Illinois state and local governments, and eventually annual fiscal benefits will exceed these tuition subsidy programs' costs.

Figure 2 Annual Costs and Fiscal Benefits of Illinois Two-Year-Only Tuition Subsidy Program



There are political challenges to investing state resources in a program that does not yield fiscal returns until decades later; however, the economic benefits of free college to a state's workers and employers begin almost immediately. This is the grounds on which many states have—and more states should—launch their free-college effort.

students receive more state funding than Pell-eligible students who may then still struggle to cover the full cost of college attendance; however, it is the dominant model when it comes to statewide free-college programs.

Note

1. This is not an ideal structure from an equity standpoint because non-Pell-eligible

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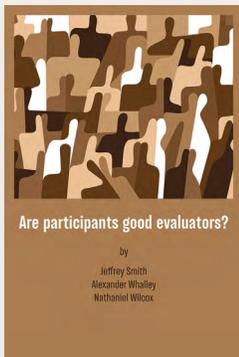
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New Book from the Upjohn Press

Are Participants Good Evaluators?

Jeffrey Smith, Alexander Whalley, Nathaniel Wilcox

Managers of workforce training programs are often unable to afford costly, full-fledged experimental or nonexperimental evaluations to determine their programs' impacts. Therefore, many rely on the survey responses of program participants to gauge program impacts.



Smith, Whalley, and Wilcox present the first attempt to assess such measures despite their already widespread use in program evaluations. They develop a multidisciplinary framework for addressing the issue and apply it to three case studies: the National Job Training Partnership Act Study, the U.S. National Supported Work Demonstration, and the Connecticut Jobs First Program.

Each of these studies were subjected to experimental evaluations that included a survey-based participant evaluation measure. The authors apply econometric methods specifically developed to obtain estimates of program impacts among individuals in the studies and then compare these estimates with survey-based participant evaluation measures to obtain an assessment of the surveys' efficacy.

The authors also discuss how their findings fit into the broader literatures in economics, psychology, and survey research.

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