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JUNE 2026

New Pathways:

A National Strategy for Reskilling Workers
Through Tuition Support in the Age of AI

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About the Milken Institute

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Introduction and Summary of Findings

For the past half-century, each American’s human capital—the education, skills, and discipline they bring to their work—has substantially determined how much they earn. This human capital is largely a legacy from childhood and adolescence—but it need not end there. Millions of Americans can change their economic trajectories by upgrading their education and skills in their 20s, 30s, and 40s. At a time when most Americans’ income gains have slowed or stalled, the federal government could ensure that every working adult has access to a “Second Chance” program. This proposed program would cover tuition costs for older students who enroll and attend one of the nation’s 1,000 public community colleges to pursue certificates and associate degrees and help them gain the additional skills and education required for a new occupation or more advanced positions in their current occupation.

Community colleges offer several types of occupational-focused programs. Certificate programs generally require one to two semesters of technical training and instruction in areas such as medical coding and records, data network administration, basic bookkeeping, or welding.¹ Associate degree programs require two years of training and study for fields and jobs such as a dental hygienist, registered nurse, paralegal, and heating and air conditioning technician. In addition, some community college students who complete their associate degree programs go on to earn bachelor’s degrees from four-year institutions.

A national Second Chance program would cover the cost difference between public community college tuition and currently available state tuition grants and scholarships for adults. This program would enable working Americans to increase their annual earnings, improve their longer-term prospects, and raise their families’ living standards by going back to school for new training and education. We examined the literature, explored the data on public community college costs and attendance by income, gender, race, and ethnicity, and analyzed the records of the two state programs in Tennessee and Michigan that currently focus on supporting adults seeking additional education and training.

Our analysis found that during the first decade (2026 to 2035) of the Second Chance policy,

- Nearly 1.2 million adults would enroll in community college education and training programs who otherwise would not have done so.
- All told, 22 million adult community college students would benefit from the Second Chance policy.
- The policy would enable more adult students to continue and complete their courses, raising their retention rate from 39.6 percent to 55.4 percent.
- The policy would enable 1.5 million more adults to complete their community college programs and earn an educational credential.
 - An additional 596,500 Second Chance adult students would earn certificates.
 - An additional 672,300 Second Chance adult students would earn associate degrees.
 - An additional 223,900 Second Chance adult students would earn bachelor's degrees after graduating from community college or transferring to four-year institutions.
- The annual earnings of Second Chance students who completed their programs would increase substantially.
 - Earnings by Second Chance adult students who completed certificate programs would increase an average of \$4,933 per year (in 2025 dollars), compared to high school graduates.
 - The earnings of Second Chance students who completed associate degree programs would increase an average of \$8,823 per year compared to high school graduates.
 - The earnings of Second Chance students who transferred or completed their community college programs and went on to earn bachelor's degrees at four-year institutions would increase an average of \$28,399 per year compared to high school graduates.
- The Second Chance program would cost the federal government an average of \$2.2 billion annually, or \$21.8 billion from 2026 to 2035.
- Federal taxes on the additional income earned by Second Chance program graduates would lower those costs by \$347.0 million annually, or \$3.5 billion from 2026 to 2035.
- The additional income of the Second Chance graduates from 2026 to 2035 would persist through their working lifetimes, and their additional real income would total \$457.0 billion over 30 years.
- The real value of the additional federal taxes paid by those graduates on their additional income over the 30 years would total \$104.1 billion, averaging \$10.4 billion per cohort year.
- As a result, the first 10 years of the Second Chance program would produce net budget gains over 30 years totaling \$82.4 billion, or an average of \$8.2 billion for each yearly cohort.

In 2023, more than 4.5 million Americans attended public community colleges.² These colleges are more accessible to students than private two-year and public and private four-year institutions because they cost less to attend, often offer more flexible part-time programs, and are located in or near most cities and towns in the United States.³ They also focus more on vocation-based instruction. In the continuing debate over the economic value of occupational-related programs versus general education, many researchers have found that working productivity is based more on skills specific to a particular job and occupation than on more general ones, and high rates of job turnover discourage employers from bearing the costs to hire and train less-skilled workers.⁴

However, enrollments in two-year colleges have fallen in recent years, even as the number of new high school graduates has risen (see Table 1).⁵ From 1990 to 2010, new high school graduates and enrollments in two-year and four-year institutions both rose steadily. From 2010 to 2013, the number of new high school graduates rose by more than 570,000, but college attendance fell by 2.26 million during that same time. All the decline involved falling enrollments at public and private two-year community colleges. Their total student bodies decreased by 2,970,000, while enrollments at four-year institutions increased by 711,000.

Table 1. New High School Graduates and Total Enrollments at Two-Year and Four-Year Institutions, 1990, 2010, and 2023

	High School Graduates	% Enrolled in College	Two-Year Colleges	Four-Year Colleges	Total
1990	2,362,000	60.1%	5,240,083	6,719,023	11,959,106
2010	3,160,000	68.8%	7,686,597	10,398,830	18,085,427
2023	3,737,370	62.7%	4,716,588	11,109,458	15,826,046
Change 2010–2023	+ 577,370	- 6.1 ppt	- 2,970,009	+ 710,628	- 2,256,645
Percent Change	+ 18.3%	- 8.9%	- 38.6%	+ 6.8%	- 12.5%

Source: National Center for Education Statistics (2023)

More than 1.4 million students who attended public community colleges in 2021 were adults aged 25 and older, accounting for more than 31 percent of all public community college enrollments, and including 823,000 adults aged 25 to 34, a target age group for the Second Chance program.

Notably, students aged 25 and older account for all the recent decline in public community college attendance.⁶ From 2020 to 2025, the number of public community college students aged 25 and older decreased by 200,000, or 12.1 percent, while the number of students aged 24 and younger increased by 6,200.⁷ This decline in adult community college attendance reflects both fewer initial enrollments and lower annual retention rates. Most older students enrolled in community colleges

also work—usually part-time—to support themselves and their families, which often creates financial and family stress. In 2023, 56 percent of part-time enrollees who had not yet graduated did not return for the next term, compared to 35 percent of full-time students.⁸

While community college enrollments and retention rates declined, the likelihood that students who remained would complete their programs and earn a credential increased. From 2012 to 2023, the number of certificates awarded at public community colleges jumped to 222,400, or 42.3 percent, and the number of new associate degrees increased by 84,200, or 11.1 percent.⁹ These positive outcomes only occurred at public two-year institutions, as the number of students earning certificates or associate degrees from private, for-profit, two-year colleges fell by 287,110, or 44.7 percent, from 2012 to 2022. By 2023, public community colleges accounted for more than 82 percent of all new certificates and associate degrees awarded.

The commitment to secure these educational credentials by both older and younger students reflects the documented relationship between those credentials and a person’s income.¹⁰ In 2024, the average income of Americans aged 25 to 34—the age range when most people become established in an occupation they chose after completing their education—with associate degrees from community colleges was \$54,090 (see Table 2).¹¹ That income was \$6,800 (14 percent more) than the average income of people of those ages who attended college and did not earn a degree; \$7,150 (15 percent more) than the average income of comparable high school graduates; and \$14,000 (35 percent more) than the average income of people of those ages without high school diplomas.

Notably, only \$350 separated the average annual income of high school graduates who never enrolled in college from that of the same age who attended college without earning a credential. The average income of associate degree holders was also \$54,090, which is \$32,460 or 38 percent lower than the average income of bachelor’s degree holders, which helps explain why 15 percent of community college students go on to earn bachelor’s degrees.¹²

Table 2. Mean Incomes and Differences by Education, Aged 25 to 34 (2024)

	Mean Income	No HS Diploma	HS Diploma	Some College/ No Degree	Associate Degree	Bachelor's Degree
No HS Diploma	\$40,090	--	-\$6,850	-\$7,200	-\$14,000	-\$46,460
HS Diploma	\$46,940	\$6,850	--	-\$350	-\$7,150	-\$39,560
Some College/No Degree	\$47,290	\$7,200	-\$350	--	-\$6,800	-\$39,260
Associate Degree	\$54,090	\$14,000	-\$7,150	-\$6,800	--	-\$32,460
Bachelor's Degree	\$86,550	\$46,460	-\$39,610	-\$39,260	-\$32,460	--

Note: The last five columns show the difference in mean incomes between the education level in the row versus the education level in the column.

Source: US Census Bureau (2024)

Why so many students who enroll in community colleges leave before earning a certificate or associate degree is a critical issue for the Second Chance policy. While race and ethnicity do not provide a consistent basis for explaining why some community college students leave and others complete their programs, family income is a very significant factor.¹³ Students from low- and moderate-income families are more likely to enroll and attend a community college than those from higher-income backgrounds.¹⁴ And among students who enroll in community college, those from low- and moderate-income families are substantially less likely to earn a credential within five years than those from higher-income families.¹⁵

Research also shows that the cost of attending community college is a primary reason why so many students leave without completing their programs, especially those from families with comparatively few financial resources. One survey found that 31 percent of community college students who left before completing their programs said they could no longer afford to stay, and 49 percent cited their need to work more.¹⁶ Another survey found that 59 percent of community college students considered leaving for financial reasons in 2024, and a recent study also found that 45 percent of students who dropped out cited financial hardship as their main reason.¹⁷

These financial pressures arise from a combination of the earnings that students forgo to attend community college and the tuition and fee costs that exceed existing state grants and scholarships. These pressures are more intense for adults, including the 1.4 million students aged 25 years old and older.¹⁸ (In 2022, 18.3 percent of students at two-year public institutions were aged 25 to 34.)¹⁹ They are not only more likely to support a family but also less likely to receive support from parents. In addition, while 33 states cover community college tuition costs for new and recent high school graduates, only two states extend comparable support to older students.

The Impact of the Second Chance Program

Given the recent decline in community college enrollment by older students, we began by analyzing how many adults would take advantage of the Second Chance program to increase their skills and job-related knowledge, and who otherwise would not attend a community college. To estimate the impact on enrollments of total tuition support under the new program—including existing state grants and scholarships—we used data from two state programs that offer that support.

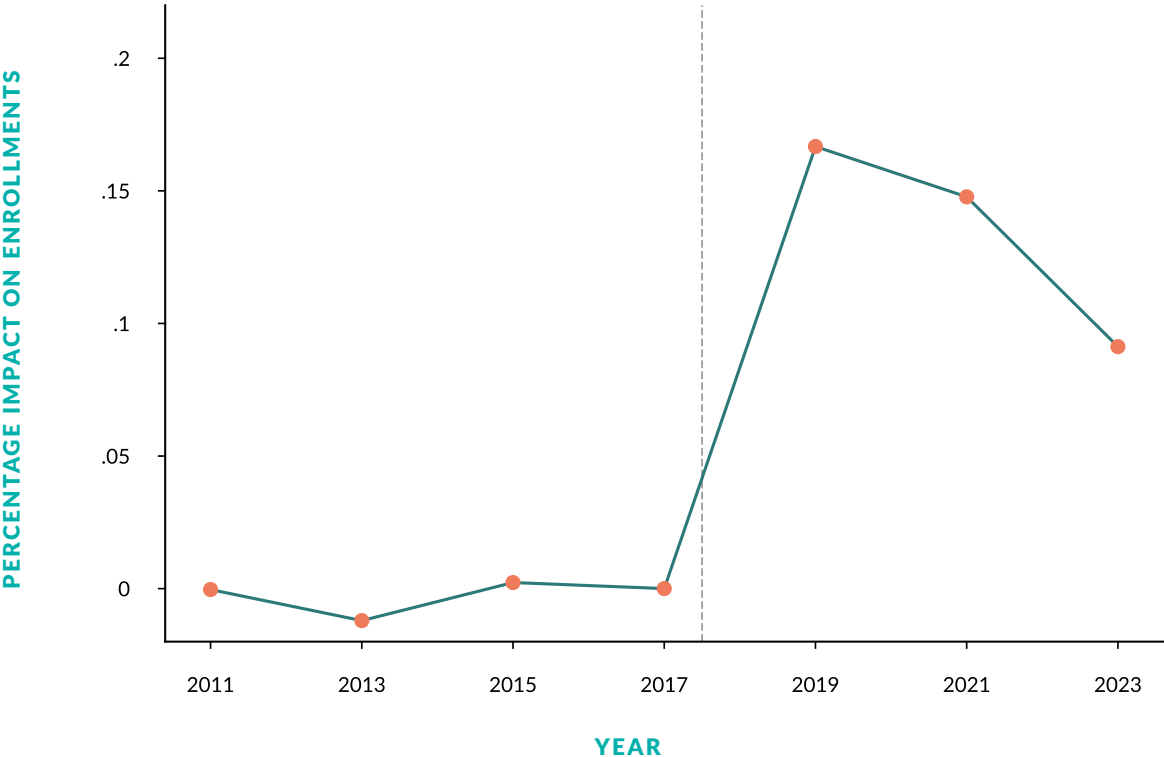
Since 2018, the Tennessee Reconnect program has offered no-cost tuition for state high school graduates aged 25 and older. Launched in 2021, the Michigan Reconnect program also provides no-cost tuition for resident high school graduates aged 25 and older with no further degree. While 33 states provide extensive community college tuition support for new or recent in-state high school graduates, Tennessee and Michigan are the only states with programs providing comparable, non-means-tested tuition support for residents aged 25 and older with no degree beyond a high school diploma and have also operated long enough to generate suitable post-program effects for our analysis. (Massachusetts launched a similar program in the fall of 2023.)

We gathered institutional-level data on fall enrollments from 2011 to 2023 from the Integrated Postsecondary Education Data System (IPEDS), a network of 12 interrelated survey components operated by the National Center for Education Statistics (NCES) that collect data each year from every US college, university, and technical and vocational institution participating in federal student financial aid programs. We focused our sample on public two-year institutions and limited the sample to odd-numbered years because many institutions do not provide enrollment data to IPEDS in even-numbered years. We then applied an event study specification to estimate the enrollment impact for each two-year period after the Tennessee and Michigan Reconnect programs began (see Appendix for technical details).

Figure 1 presents our estimates of the extent of additional enrollments based on the data and event study specification for the Tennessee Reconnect program (see Appendix for coefficients). In

2019, there was a substantial increase in adult enrollments relative to the rest of the country. Our analysis found the program increased enrollments by people aged 25 and over by 18.4 percent compared to expected enrollment absent the program. This enrollment effect diminished in 2021 and 2023 while remaining positive.

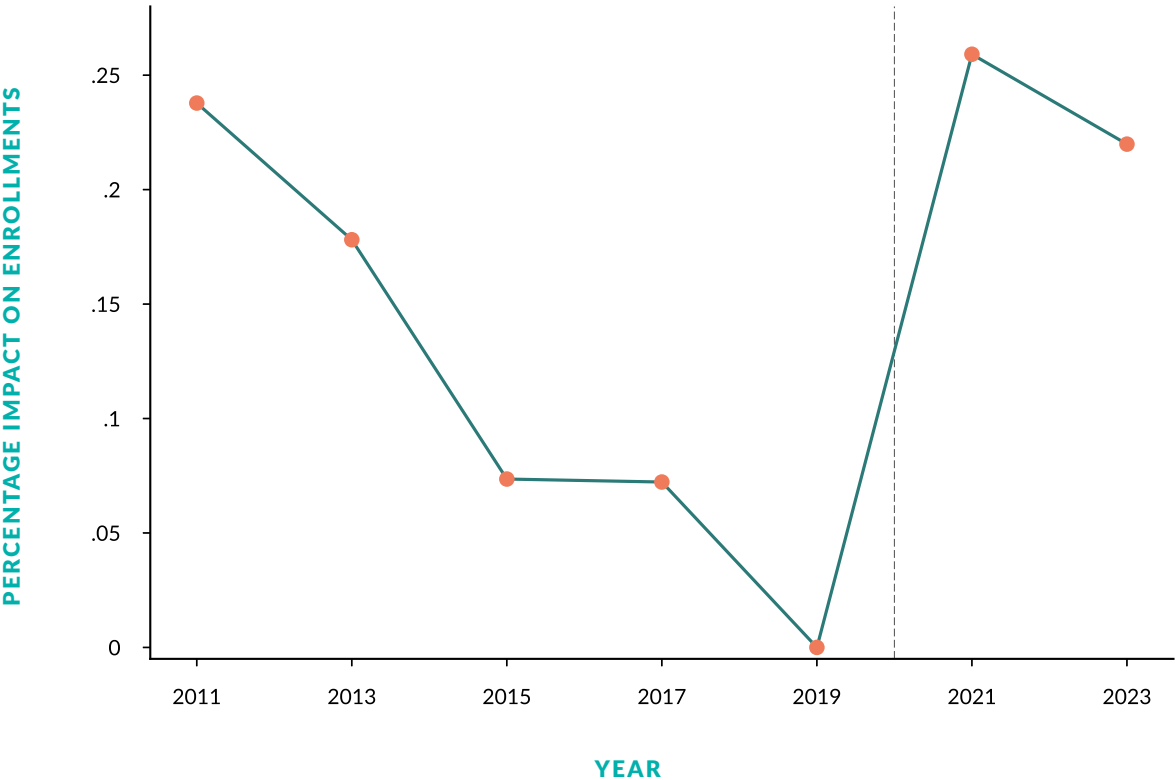
Figure 1. Enrollment Effects of the Tennessee Reconnect Program



Source: Milken Institute (2026)

Figure 2 presents the results based on the data and event study specification for Michigan Reconnect. Before its introduction in 2021, older student enrollment at Michigan community colleges had been trending down substantially relative to the rest of the country. Our analysis found that with the program’s introduction, enrollments surged by 26.9 percent in 2021 and by 24.6 percent in 2023 compared to nationwide data. These results may have underestimated the enrollment effects if the prior downward trend had continued in the absence of the program. Our results, therefore, provide a lower bound for the estimated enrollment effects.

Figure 2. Enrollment Effects of the Michigan Reconnect Program



Source: Milken Institute (2026)

BASELINE ESTIMATES

To estimate how many additional adults would enroll in community colleges under a national Second Chance program, we first projected national enrollments in public community colleges from 2026 to 2035, absent the program. The National Student Clearinghouse (NSC) provides estimated per-semester total enrollments in public two-year institutions by people aged 25 and older up to the spring of 2025. The NSC data show that attendance numbers declined steadily from 2011 to 2023, followed by steady increases in adult attendance, averaging 4.88 percent from 2023 to 2025.²⁰ Using the 2025 NSC data on enrollments and attendance of students aged 25 and older totaling 1,474,428, we projected national enrollment from 2026 to 2035 by extrapolating the 2023 to 2025 growth trend, absent the Second Chance program.²¹ These estimates, presented in Table 3, increase from 1,546,376 in 2026 to 2,374,313 in 2035.

ENROLLMENT EFFECTS FROM THE SECOND CHANCE PROGRAM

To estimate the impact of a nationwide Second Chance program on adult attendance at public community colleges, we applied the percentage changes in over-25 enrollments from our event studies of the Tennessee and Michigan Reconnect programs. As provided in the above figures, both cases resulted in substantial enrollment increases, especially in their early years.

To estimate the first two years of the Second Chance program (2026 and 2027), we applied the average percentage change impact from the two state programs, 23.7 percent, to our baseline enrollment estimates. The difference is the enrollment effects of the program in the first two years. We used the same approach for years three and four (2028 and 2029) with an average increase of 20.2 percent. For years five and six (2030 and 2031), we applied the 9.6 percent enrollment effects under the Tennessee Reconnect program because only four years of data from the Michigan Reconnect program are available. We also do not have data on adult enrollment increases under a state program beyond six years, so for our 10-year estimates, we assumed subsequent annual enrollment effects would continue to average 9.6 percent.

The additional annual enrollments of individuals average nearly 267,000 annually, total nearly 2.7 million over 10 years, and range from 384,837 in 2027 to 178,758 in 2030.

Table 3. Baseline Community College Enrollments of People Aged 25 and Older and Additional Enrollments with a Nationwide Second Chance Program, 2026 to 2035

Year	Baseline Enrollment	Additional Enrollment	Total Enrollment
2026	1,546,376	366,932	1,913,308
2027	1,621,834	384,837	2,006,672
2028	1,700,975	343,204	2,044,179
2029	1,783,977	359,951	2,143,928
2030	1,871,030	178,758	2,049,788
2031	1,962,331	187,481	2,149,812
2032	2,058,087	196,629	2,254,716
2033	2,158,515	206,224	2,364,740
2034	2,263,844	216,287	2,480,132
2035	2,374,313	226,842	2,601,155
Total	19,341,282	2,667,145	22,008,430
Average	1,934,128	266,715	2,200,843

Source: Milken Institute (2026)

THE SECOND CHANCE PROGRAM'S FEDERAL COSTS

To estimate the annual federal costs of the Second Chance program for the years 2026 to 2035, we began with the estimated number of participants from the enrollment effects analyzed above, with an important revision: Some peoples aged 25 and older projected to enroll in community college programs when the Second Chance program is in effect will not qualify for the program because they already hold a college degree, are not US citizens, or do not qualify as “independent”

students under the Free Application for Federal Student Aid guidelines. In addition, some adults who enroll in community college programs may not have knowledge or interest in the program's assistance. To estimate the share of older students who would receive Second Chance support, we used the ratio of the number of grantees under the Tennessee Reconnect program in 2018 and 2020 and the number of aged 25 and older enrollment in the 13 Tennessee community colleges that offered Reconnect grants, drawn from IPEDS data.²² This analysis found that an average of 66.7 percent of enrollees aged 25 and older qualified for and received Tennessee Reconnect grants—73.8 percent in 2018 and 59.5 percent in 2020.²³

ESTIMATED VALUE OF SECOND CHANCE GRANTS

To estimate the average annual grant amount per recipient, we applied grant data from the Tennessee and Michigan Reconnect programs. Like the Second Chance program, these state Reconnect efforts are “last dollar” programs that provide grants covering the difference between tuition and existing state and federal aid and scholarships. Therefore, we began by analyzing the average amount of existing tuition support for older students.

In 2023, the Fiscal Review Committee of the Tennessee General Assembly reported that the average Tennessee Reconnect grant was expected to be \$2,627 in fiscal year 2024–2025.²⁴ A 2025 report from the Office of Higher Education, Michigan Department of Lifelong Education, Advancement, and Potential reported that the average Michigan Reconnect grant in fiscal year 2023–2024 was \$1,353.²⁵

Higher community college tuitions in Tennessee account for most of the difference. The average Reconnect grantee in Tennessee took nine credits per semester or 18 credits annually.²⁶ In 2025, the enrollment-weighted average tuition for 18 credits at public community colleges in Tennessee in 2025 was \$3,224.²⁷ Therefore, the average Tennessee Reconnect grantee received \$597 in other forms of state aid that same year. Comparable calculations for Michigan found that Michigan Reconnect participants received an average of \$860 in other forms of support in 2025.²⁸ Averaging these results, we estimated that older students received an average of \$728 in other types of tuition support in 2025.

To estimate the federal government's cost, we used IPEDS data showing that public community college tuition for 18 credits averaged \$2,008 in 2023 and then applied the average annual increase in community college tuition of 3.3 percent from 2015 to 2023. This yielded our estimate that community college tuition for 18 credits averaged \$2,075 in 2025, and our federal cost calculations assume subsequent tuition increases of 3.3 percent annually from 2026 to 2035. Taking account of the \$728 average aid apart from the support for Reconnect students in Tennessee and Michigan, the average grant under a national Second Chance program would be \$1,347 in 2025 and \$1,370 in 2026.

GROSS COST FOR THE FEDERAL GOVERNMENT

Earlier, we estimated the baseline community college enrollments of older students, the additional adults who would enroll under the Second Chance program, and an adjustment to total enrollments based on 66.7 percent qualifying for Second Chance assistance. Based on the analysis of the average grant, we projected the cost of the nationwide program for the years 2026 to 2035

(see Table 4). We predicted that the program would cover an average of 2.2 million older students per year (a total of 22.0 million over 10 years), reward an average annual grant of \$1,476, and cost the federal government an average gross of \$2.2 billion per year and a total of \$21.8 billion over 10 years.

Table 4. Second Chance Older Students Qualified for Support, Average Costs per Recipient, and Total Costs for the Nationwide Program, 2026 to 2035

Year	Total Enrollment	Average Grant	Federal Cost
2026	1,913,308	\$1,370	\$1,747,522,351
2027	2,006,672	\$1,392	\$1,862,921,268
2028	2,044,179	\$1,415	\$1,929,455,182
2029	2,143,928	\$1,439	\$2,056,868,165
2030	2,049,788	\$1,463	\$1,999,414,448
2031	2,149,812	\$1,487	\$2,131,447,243
2032	2,254,716	\$1,512	\$2,272,812,951
2033	2,364,740	\$1,536	\$2,422,899,816
2034	2,480,132	\$1,562	\$2,583,595,770
2035	2,601,155	\$1,588	\$2,754,205,406
Total	22,008,430	--	\$21,761,142,600
Average	2,200,843	\$1,476	\$2,176,114,260

Source: Milken Institute (2026)

ADDITIONAL EARNINGS BY GRADUATES OF THE SECOND CHANCE PROGRAM

The net federal budgetary costs will be lower because adults who receive a certificate, associate degree, or bachelor’s degree will increase their earnings, which will be subject to federal tax. Extensive US Census Bureau data demonstrate the average impact of people’s educational credentials on their earnings by age. Rather than applying the average income changes based on education, we used data from the Survey of Income and Program Participation (SIPP), a nationally representative longitudinal survey conducted by the US Census Bureau that includes extensive microdata on respondents’ incomes, education, and employment. The SIPP data also include a category for vocational certificates that is not reported in other Census Bureau surveys, such as the American Community Survey. We used these data to estimate the average impact of attaining a community college certificate or an associate degree on a person’s earnings.

Our analysis draws on annual SIPP surveys for 2018 to 2024, the most up-to-date data on income earned by certificate and associate degree holders. We started with the 2018 data because the survey adopted a new methodology that year, based on a continuous series of panels with new individuals added each year and then interviewed for multiple years thereafter.

Our regression analysis of the data covered 28,221 data points that treated each respondent, by year, as an independent observation. We noted that the results were similar when we used only the last year available for each respondent.²⁹ We included all SIPP respondents from 2018 to 2024 with the following characteristics: aged 25 to 34, high school graduates, graduated and did not attain a credential higher than a community college certificate or associate degree, and did not receive Social Security disability benefits. We focused on respondents aged 25 to 34 on the assumption that this age cohort would be the most likely to take advantage of the Second Chance program. In addition, annual earnings were limited to wages or self-employment compensation and profits and were expressed in 2024 dollars. We also adjusted the observations using the survey weights provided by SIPP (see Appendix for technical details).

Table 5 presents the results: The annual earnings of people who met the inclusion criteria and attained an educational or vocational certificate increased by \$4,933 on average compared to those who met the criteria and did not attain a credential beyond their high school diplomas. Similarly, the annual earnings of those who met the criteria and attained an associate degree increased by an average of \$8,823 compared to those who met the criteria but did not complete a credential program beyond high school. All results are statistically significant at a 1 percent level.

Table 5. Earnings Effects of Attaining Community College Educational Credential (in 2024 dollars)

	Certificate	Associate Degree
Increased Earnings	\$4,933	\$8,823
Observations	16,079	12,142

Source: Milken Institute (2026)

NET COSTS FOR THE FEDERAL GOVERNMENT

The net federal cost of the Second Chance program should take into account the subsequent tax revenues paid on additional income earned by those who complete a certificate or associate degree and would not have done so without Second Chance tuition, based on the additional enrollments analyzed earlier and adjusted for the share that complete program requirements. There are no publicly available annual data on the number of new community college attendees aged 25 and older. Therefore, we estimated those numbers based on the average duration older students remain enrolled in community colleges and used that finding to estimate the number

of students that age who left the program in the previous year and the number of unique new enrollees.³⁰

To estimate average enrollment duration, we use NSC data that track the percentage of students aged 25 and older who enrolled in community colleges in 2019 and either dropped out or earned a credential during each of the following six years.³¹ Based on these data, we estimated that the average duration of those students' enrollment was 2.59 years, and therefore, an average of 38.6 percent of older students left in any given year.³²

Applying this result to a previous year's enrollment, we estimated the number of returning students in a given year. Subtracting this result from the current year enrollment provides the estimate of the number of new students in a given year. We performed these calculations for the baseline enrollment projections and the estimated additional enrollments under the Second Chance program, and the difference is the number of new, unique students enrolled because of the program.

Next, we estimated how many newly enrolled students earned a certificate or associate degree. The NSC data show that 39.6 percent of older students who enrolled in community colleges in 2019 completed their program within six years. Given that many students leave without earning a credential because they are unable to continue paying tuition, we expect tuition assistance for new adult students in the Second Chance program will increase their retention and persistence rates.³³

The 2022 state evaluation of the incoming 2018 Tennessee Reconnect program grant recipients found that one year later, 59.7 percent of the grantees either graduated or were enrolled in a community college, versus 43.9 percent of older students not in the program.³⁴ Similarly, the 2022 state analysis of the Michigan Reconnect program found that 66.6 percent of incoming 2022 grantees were enrolled or had graduated one year later, compared to 50.8 percent of older students not in the program.³⁵ In both cases, the Reconnect program increased retention rates by 15.8 percentage points.

On this basis, we estimated that 55.4 percent of Second Chance program grantees will earn a certificate or associate degree, versus the 39.6 percent rate for all students reported by the NSC, a total of 1,169,044 from 2026 to 2035 (see Table 6).³⁶ We also applied this 15.8 percentage point increase in retention and completion rates to students aged 25 and older who would have enrolled in community college under current grants, adjusted for the estimate that 66.7 percent of older students would qualify for Second Chance support. We estimated that an additional 845,086 older students would earn community college credentials because of this program. Based on this analysis, the Second Chance program would increase the number of Americans aged 25 and older who enroll in community college and earn a certificate or associate degree from 2026 to 2035 by a total of 1,492,736 people, or an average of 149,274 per year (see Table 6).

Table 6. Impact of the Second Chance Program on Older Student Enrollments and Graduation Rates of Those and Other Older Students Supported by the Program, 2026 to 2035

Year	Additional Older Students	Those Additional Older Students Who Graduated	Other Additional Older Graduates	Total Additional Older Graduates
2026	366,932	203,280	67,567	270,847
2027	159,578	88,406	70,863	159,269
2028	106,952	59,252	74,321	133,573
2029	149,258	82,689	77,948	160,637
2030	-42,216	-23,388	81,752	58,364
2031	77,741	43,069	85,741	128,810
2032	81,535	45,170	89,925	135,095
2033	85,514	47,375	94,312	141,687
2034	89,686	49,686	98,915	148,601
2035	94,063	52,111	103,742	155,853
Total	1,169,044	647,650	845,086	1,492,736
Average	116,904	64,765	84,509	149,274

Source: Milken Institute (2026)

Next, we estimated the additional taxable wages of people who would not have earned a community college certificate or associate degree without total tuition assistance. Earlier, we found that compared with high school graduates, the additional earnings associated with attaining a community college certificate or associate degree were \$4,933 and \$8,823, respectively. In addition, some community college students go on to earn a bachelor’s degree after earning an associate degree or transferring from community college to a four-year institution. In 2024, their earnings averaged \$28,399 more than those of people with only a high school diploma.³⁷ We also estimated the number of older community college students who earned a bachelor’s degree.

A recent report from the Community College Research Center, Teachers College, Columbia University, found that 16 percent of community college students eventually earned a bachelor’s degree.³⁸ The report provides data on the percentage of community college students who transferred to four-year institutions, the percentage of those transfer students who had earned a community college credential (usually an associate degree), and the percentage that went on to earn a bachelor’s degree.

Based on IPEDS data, we estimated that among community college students who earned a credential in 2023, 43.2 percent earned a certificate and 56.8 percent earned an associate degree. Based on these data and our finding that 39.6 percent of community college students

aged 25 and older completed their programs and earned a credential, we estimated that among that group, 40 percent earned certificates, 45 percent earned associate degrees, and 15 percent earned bachelor's degrees.³⁹ Therefore, we estimated that among older students who would not have earned a credential beyond a high school diploma from 2026 to 2035 without complete tuition support, 596,500 would receive certificates, 672,300 would receive associate degrees, and 223,910 would receive bachelor's degrees (see Table 7).

Using these data, we estimated the additional earnings of older Americans who would not have earned an educational credential beyond a high school diploma without complete tuition support. Approximately 40 percent would increase their real annual earnings by an average of \$4,933, 45 percent by an average of \$8,823, and 15 percent by an average of \$28,399. Therefore, the additional earnings of those receiving certificates, associate degrees, and bachelor's degrees will total more than \$15.2 billion from 2026 to 2035 and average more than \$1.52 billion per year.

Table 7. Additional Earnings of Older Students Who Attain Certificates, Associate Degrees, or Bachelor's Degrees Based on Second Chance Assistance, 2026 to 2035 (in 2024 dollars)

Year	Additional Certificates	Additional Associate Degrees	Additional Bachelor's Degrees	Total Additional Earnings
2026	108,230	121,989	40,627	\$2,763,968,816
2027	63,644	71,735	23,890	\$1,625,332,026
2028	53,376	60,161	20,036	\$1,363,099,271
2029	64,191	72,351	24,096	\$1,639,288,252
2030	23,322	26,287	8,755	\$595,600,085
2031	51,472	58,016	19,321	\$1,314,490,648
2032	53,984	60,847	20,264	\$1,378,633,873
2033	56,618	63,816	21,253	\$1,445,907,097
2034	59,381	66,930	22,290	\$1,516,463,053
2035	62,279	70,196	23,378	\$1,590,461,930
Total	596,497	672,328	223,910	\$15,233,245,051
Average	59,650	67,233	22,391	\$1,523,324,505

Source: Milken Institute (2026)

FEDERAL TAX REVENUES FROM THE ADDITIONAL EARNINGS

Next, we estimated the additional federal tax revenues associated with these potential future earnings. Wage income is subject to Federal Insurance Contributions Act (FICA) taxes, levied at a flat rate of 15.3 percent on the first \$176,100 of income and a 2.9 percent Medicare tax on earnings above that ceiling. Therefore, the additional earnings from students completing Second Chance-supported degrees would be subject to 15.3 percent tax up to the \$176,000 ceiling. To determine additional FICA tax revenues on earnings above the ceiling, we used SIPP data to estimate the share of additional certificate, associate degree, and bachelor's degree graduates who would earn more than the income ceiling, and whose extra income from the degree would be subject to the 2.9 percent Medicare tax.

Wage income also is subject to federal income tax based on the taxpayer's income bracket after deductions and above-the-line adjustments. Using SIPP data, we estimated the shares of certificate, associate degree, and bachelor's degree holders in each income range and applied the average effective tax rates under the Tax Cuts and Jobs Act.⁴⁰

The net federal cost of the Second Chance program from 2026 to 2035 is the gross costs presented in Table 4 above, minus those FICA and income tax revenues. We found that the federal taxes on the additional earnings of older students who earned certificates, associate degrees, or bachelor's degrees under the Second Chance program, and who otherwise would not have done so, total \$3.5 billion for 2026 to 2035. This is an average of \$347 million per year, with a range of \$136 million to \$630 million (see Table 8). Consequently, the program's net costs to the federal government would total \$18.3 billion for 2026 to 2035, averaging \$1.83 billion per year and ranging from \$1.12 billion to \$2.4 billion.⁴¹

Table 8. Additional Federal Tax Revenues from the Additional Earnings of Older Students Who Complete Certificate, Associate, or Bachelor’s Degree Programs with Second Chance Tuition Assistance, 2026 to 2035 (in 2024 dollars)

Year	Total Additional Earnings	Total Additional Tax Revenues	Net Cost for the Federal Government
2026	\$2,763,968,816	\$629,739,521	\$1,117,782,831
2027	\$1,625,332,026	\$370,313,806	\$1,492,607,462
2028	\$1,363,099,271	\$310,566,992	\$1,618,888,189
2029	\$1,639,288,252	\$373,493,576	\$1,683,374,589
2030	\$595,600,085	\$135,700,848	\$1,863,713,600
2031	\$1,314,490,648	\$299,492,059	\$1,831,955,184
2032	\$1,378,633,873	\$314,106,378	\$1,958,706,573
2033	\$1,445,907,097	\$329,433,833	\$2,093,465,983
2034	\$1,516,463,053	\$345,509,222	\$2,238,086,548
2035	\$1,590,461,930	\$362,369,043	\$2,391,836,363
Total	\$15,233,245,051	\$3,470,725,278	\$18,290,417,321
Average	\$1,523,324,505	\$347,072,528	\$1,829,041,732

Source: Milken Institute (2026)

ADDITIONAL FEDERAL TAX REVENUES OVER THE WORKING LIFETIMES OF SECOND CHANCE BENEFICIARIES

These net cost calculations do not take full account of the additional taxable income based on Second Chance-supported credentials. To properly assess the program’s net cost to the federal government, we must recognize that the costs are borne up front—here, annually from 2026 to 2035—and the additional earnings and related tax revenues will persist over the working lifetimes of the program’s beneficiaries. Therefore, we also estimated the long-term federal budgetary impact for each yearly cohort of beneficiaries based on the present value of the additional revenues from taxing the increased incomes of each annual recipient group over their working lifetimes. For this analysis, we assumed that the beneficiaries would work for an average of 30 years after earning their credentials and that the real value of their additional income would remain unchanged over the 30 years. Therefore, we estimated the real value of the additional tax revenues for each year’s cohort of beneficiaries over 30 years by multiplying the additional tax revenues presented in Table 8 above by 30 and subtracting the result from the cost of the program in each cohort year.⁴²

This analysis found that federal revenues from the additional lifetime earnings of older students who enrolled in public community colleges because their tuition would be covered, and completed a certificate, associate degree, or bachelor's degree program, would greatly exceed the government's cost to cover tuition for all older students from 2026 to 2035, including those who would have enrolled without full tuition assistance (see Table 9).

Over the 30-year working lifetimes of 1.49 million individuals in the first 10 yearly cohorts of the Second Chance program, we estimated they would earn an additional \$457 billion, or an average of \$306,148 each. The government's additional revenues on this \$457.0 billion would total \$104.1 billion and exceed the program's cost in those 10 years by an average of \$10.4 billion for each cohort year. Therefore, over the 30-year working lifetimes of the Second Chance graduates from 2026 to 2035, the program would generate revenues that exceeded its costs in the first 10 years by \$82.4 billion.

Table 9. Additional Federal Revenues over 30 Working Years from Additional Earnings by Second Chance Yearly Cohorts and Net Gains for the Federal Budget (in 2024 dollars)

Year	Additional Real Earnings over 30 Years	Gross Annual Cost of the Program	Additional Real Tax Revenues over 30 Years	Net Budget Gains over 30 years
2026	\$82,919,064,482	\$1,747,522,351	\$18,892,185,627	\$17,144,663,276
2027	\$48,759,960,788	\$1,862,921,268	\$11,109,414,176	\$9,246,492,908
2028	\$40,892,978,127	\$1,929,455,182	\$9,317,009,767	\$7,387,554,585
2029	\$49,178,647,546	\$2,056,868,165	\$11,204,807,292	\$9,147,939,127
2030	\$17,868,002,553	\$1,999,414,448	\$4,071,025,441	\$2,071,610,992
2031	\$39,434,719,430	\$2,131,447,243	\$8,984,761,759	\$6,853,314,516
2032	\$41,359,016,190	\$2,272,812,951	\$9,423,191,351	\$7,150,378,399
2033	\$43,377,212,897	\$2,422,899,816	\$9,883,015,000	\$7,460,115,184
2034	\$45,493,891,587	\$2,583,595,770	\$10,365,276,672	\$7,781,680,902
2035	\$47,713,857,888	\$2,754,205,406	\$10,871,071,277	\$8,116,865,872
Total	\$456,997,351,488	\$21,761,142,600	\$104,121,758,361	\$82,360,615,761
Average	\$45,699,735,149	\$2,176,114,260	\$10,412,175,836	\$8,236,061,576

Source: Milken Institute (2026)

By supporting community college tuition for adults who choose to improve their skills and education, the Second Chance program would enable nearly 1.5 million Americans to earn an additional educational credential in the first 10 years, from 2026 to 2035. In turn, their additional education, skills, and credentials would enable them to earn substantially more income throughout their working lifetimes, and the additional federal tax revenues on those earnings would generate over \$104 billion over 30 years—or five times the government's \$21.8 billion costs for the program from 2026 to 2035.

Community College Enrollments and Graduations Since 2012

The steady decline in community college enrollments and the role of students' financial resources provide the context for establishing the Second Chance program. Enrollments at both two-year and four-year colleges rose steadily for several decades (see Table 10).⁴³ However, the NCES reports that total enrollments declined by 1,403,621—or 8.1 percent—from 2014 to 2023, with nearly all the decline occurring at public community colleges.

Table 10. Total Enrollments at Two-Year and Four-Year Institutions, 1994, 2004, 2014, and 2023

	Two-Year Colleges		Four Year Colleges	Total
	Public	Private		
1994	5,308,366	221,213	6,732,999	12,262,578
2014	6,397,552	317,126	10,579,458	17,294,136
2023	4,733,406	209,958	10,947,151	15,890,515
Change 2014–2023	- 1,664,146	- 107,168	+ 367,693	- 1,403,621
Percent Change	- 26.0%	- 33.8%	+ 3.5%	- 8.1%

Source: National Center for Education Statistics (2023)

This decline in community college attendance was not associated with a decline in new high school graduates eligible to go to two-year colleges, since the number of new high school graduates increased by 246,000, or 7.7 percent, from 2014 to 2022 (see Table 11).⁴⁴

Table 11. New High School Graduates and Enrollments of First-Time Students at Two-Year Colleges, 2014 and 2022

	High School Graduates	Two-Year Institutions		
		Public	Private	Total
2014	3,179,700	1,070,625	72,572	1,143,197
2022	3,425,512	757,064	48,639	805,703
Change, 2014-2022	+ 245,812	- 313,561	- 23,933	- 337,494
Percent Change	+ 7.7%	- 29.3%	- 33.0%	- 29.5%

Source: National Center for Education Statistics (2023)

About half of Americans enrolled in public community colleges are close to high school graduation age—aged 20 or younger—and 32 percent are 25 and older, including nearly one million students aged 30 and older (see Table 12).⁴⁵ From 2020 to 2025, the number of public community college students aged 21 and older declined by 335,800 or 12.6 percent (from 2,665,400 to 2,329,600), while the number of community college students aged 20 or younger remained virtually unchanged. The decline in older community college students accounted for virtually all the decline in enrollments.

Table 12. Ages of People Attending Public Community Colleges, 2020 and 2025

	2020	Percentage	2025	Percentage	Change
Aged 17 and Younger to 20	2,356,800	47.0%	2,350,400	50.2%	- 0.3%
Aged 21 to 24	991,300	19.7%	855,200	18.3%	- 13.7%
Aged 25 to 29	616,600	12.3%	505,700	10.8%	- 18.0%
Aged 30 and Older	1,057,500	21.1%	968,700	20.7%	- 8.4%
Total	5,022,200	100%	4,680,000	100%	- 6.8%

Source: National Student Clearinghouse Research Center (2025)

While enrollments declined, student retention rates—the numbers of students returning for a second term or second year— at public community colleges and four-year institutions increased (see Table 13).⁴⁶ These retention rates were also consistently much lower for part-time students than those attending full-time, and older students are more likely to attend part-time.

Table 13. Retention Rates of First-Time College Attendees, 2012, 2017, and 2023

	Two-Year Public Institutions		Four-Year Institutions	
	Full-Time	Part-Time	Full-Time	Part-Time
2012	59.3%	43.0%	77.6%	44.1%
2017	61.9%	44.7%	81.0%	49.2%
2023	64.5%	44.0%	81.7%	49.5%

Source: National Center for Education Statistics (2024)

Despite the declining enrollment, the numbers of public community college students who earned certificates or associate degrees increased substantially, and the number of students earning bachelor’s degrees at four-year institutions increased more modestly—consistent with higher retention rates—while the number of students earning new credentials from for-profit two-year colleges fell sharply (see Table 14).⁴⁷

Table 14. New Certificates and Associate Degrees from Public and Private Two-Year Institutions, and New Bachelor’s Degrees from Four-Year Institutions, 2012, 2017, and 2023

	Certificates			Associate Degrees			Bachelor’s Degrees
	Public	Private	Total	Public	Private	Total	
2012	525,264	463,797	989,061	756,484	265,234	1,021,718	1,792,163
2017	631,076	314,947	946,023	861,970	143,717	1,005,687	1,956,114
2023	747,624	314,808	1,062,432	840,676	118,638	959,314	1,965,343
Change 2012–2023	+ 222,360	- 148,989	+ 73,371	+ 84,192	- 146,597	- 62,404	+ 173,180
Percent Change	+ 42.3%	- 32.1%	+ 7.4%	+ 11.1%	- 55.3%	- 6.1%	+ 9.7%

Source: National Center for Education Statistics (2023–2024)

Taken together, fewer older students enrolled in public community colleges, but retention and graduation rates increased among those who did enroll. The past decade’s uncertain economic and social conditions—including the pandemic’s disruptive effects on employment, prices, education, and family life—may have played a significant role. People experiencing economic losses, social disruption, and greater economic uncertainty are often less inclined to take on additional costs to

continue their education. However, the same economic and social pressures may motivate those who can handle the costs to complete their programs.

The costs for tuition and fees are not a factor for recent high school graduates in 33 states that provide total tuition assistance for those students. However, only two states provide such support for older students, and the pool of adults aged 25 to 34 who could benefit from no-cost tuition at public community college programs is large.

In 2024, 9.9 million Americans aged 25 to 34 held high school diplomas and had never attended college, and 5.3 million people attended college without completing a program (see Table 15).⁴⁸ Other data also suggest that substantial numbers of older students who took advantage of no-cost community college tuition would complete their programs. From 2014 to 2024, the number of adults aged 25 to 34 who attended college and did not complete a program fell 15.1 percent, and the number who earned associate degrees increased 5.6 percent (see Table 15). The number of adults of those ages who completed bachelor’s degree programs also increased sharply, by 28.0 percent.

Table 15. Number of 25- to 34-Year-Olds by Education, 2014 and 2024

	2014	2024	Difference	% Difference
No HS Diploma	1,864,000	1,187,000	- 677,000	- 36.3%
HS Diploma	8,319,000	9,910,000	+ 1,591,000	+ 19.1%
Some College, No Degree	6,285,000	5,338,000	- 947,000	- 15.1%
Associate Degree	3,849,000	4,066,000	+ 217,000	+ 5.6%
Bachelor’s Degree	9,449,000	12,090,000	+ 2,641,000	+ 28.0%
Total	29,766,000	32,591,000	+ 2,825,000	+ 9.5%

Source: US Census Bureau (2024–2025)

Disparities in College Enrollment Based on Family Income or Race and Ethnicity

The impact of students' family incomes on their college attendance and graduation rates also provides substantial support for the Second Chance program. In 2009, NCES began tracking the family incomes of tens of thousands of ninth-grade students and determined how many attended a college within four years of receiving their high school diplomas. The results showed that in 2019, the share of high school graduates who had enrolled in college rose with family income from 56 percent of those from families in the lowest income quintile to 75 percent for those in the middle quintile, and 93 percent for those in the highest quintile (see Table 16). Those from families in the top 20 percent by income were 67 percent more likely to attend college than those from the bottom 20 percent and 24 percent more likely than those from families in the middle 20 percent.⁴⁹

Table 16. Share of Students Who Enrolled in Two-Year or Four-Year Institutions Within Four Years of Graduating High School, by Family Income Quintile (2019)

All	Quintile 1	Quintile 2	Quintile 3	Quintile 4	Quintile 5
75.7%	55.7%	65.9%	75.1%	83.1%	93.2%

Source: National Center for Education Statistics (2019)

Among the students who had enrolled in college, their likelihood of attending a two-year public community college versus a four-year public institution was also closely associated with family income (see Table 17). The share of those students who enrolled in two-year community colleges declined from 51.2 percent of those from the lowest income quintile to 38.4 percent from the middle income quintile and 18.1 percent from the highest income quintile. Similarly, the share that enrolled in four-year public colleges and universities increased with income, from 27.8 percent of those from the lowest income quintile to 41.9 percent of those from the middle income quintile and 53.8 percent of those from the highest quintile.⁵⁰ Among students attending college, those from families in the bottom income quintile were 33.3 percent more likely to attend a public community college than those from families in the middle-income quintile and 182.9 percent more likely to attend a public community college than those from families in the top income quintile.⁵¹

Table 17. Shares of College-Attending Students Enrolled in Two-Year and Four-Year Public Institutions, by Family-Income Quintile

	Total	Quintile 1	Quintile 2	Quintile 3	Quintile 4	Quintile 5
Two-Year	34.7%	51.2%	47.6%	38.4%	34.6%	18.1%
Four-Year	42.7%	27.8%	36.1%	41.9%	42.7%	53.8%
Total	77.4%	79.0%	83.7%	80.3%	77.3%	71.9%

Source: National Center for Education Statistics (2019)

Among students enrolled in public or private community colleges, the likelihood of leaving without receiving a certificate, an associate degree, or going on to earn a bachelor's degree is also moderately correlated with family income. Five years after enrolling, students from low-income and moderate-income families were consistently less likely to complete a program than those from middle-income, upper-middle-income, and high-income families (see Table 18).⁵² There is less evidence of a family-income effect on the share of those students who had earned a certificate or associate degree by five years later and moderate evidence of a family-income impact on the share that went on to earn a bachelor's degree from a four-year institution.

Table 18. Educational Attainment of Students Who Attended Two-Year Institutions, Five Years Later, by Family Income (in 2017 dollars)

Family Income	Certificate	Associate Degree	Bachelor's Degree	No Credential
Less than \$25,000	8.4%	14.5%	11.7%	65.4%
\$25,000–\$44,999	7.3%	16.4%	12.3%	64.0%
\$45,000–\$69,999	7.1%	17.6%	16.6%	58.7%
\$70,000–\$99,999	7.6%	16.3%	19.1%	56.9%
\$100,000 and more	6.6%	19.6%	18.8%	55.0%

Source: National Center for Education Statistics (2019)

RACE AND ETHNICITY

Unlike family income, minority students' race and ethnicity have not had a consistent impact on their community college enrollment or graduation rates. In 2023, enrollment rates in public community colleges by Asian, Black, and multiracial students corresponded closely to the population share of people aged 18 to 24, while Hispanic students enrolled at higher rates (see Table 19).⁵³ White students are the only group that enrolled at lower rates than their share of the population would suggest. As noted earlier, graduation rates increased from 2017 to 2022 while enrollment rates declined. Those rates rose very sharply among Asian, Hispanic, and multiracial students earning certificates or associate degrees, increased little among White and Black certificate students, and declined among White and Black associate degree students.

Table 19. Shares of Students Enrolled in Public Community Colleges by Race and Ethnicity, and Their Shares of the US Population Aged 18 to 24, 2023

	Enrollment	Population, 18 to 24
Asian	6.5%	6%
Black	13.6%	14%
Hispanic	28.6%	24%
White	45.9%	52%
Multiracial	4.3%	4%

Sources: National Center for Education Statistics (2022) and Census Bureau (2024)

The only consistent pattern in changes in community college enrollments from 2017 to 2022 was the disproportionate decline of White students, down by almost 25 percent (see Table 20).⁵⁴ Taking account of the overall decline, White students' share of total enrollments fell 8.5 percent. In contrast, enrollments by Hispanic, multiracial, and Black students fell substantially less than the overall decline, and their shares of total enrollments increased. The decline among Asian students was near the decline among all students, and their share of total enrollments changed little.

Table 20. Enrollment in Public Community Colleges by Race and Ethnicity and Shares of Total Enrollments, 2017 and 2022

	2017		2022		Percentage Change	Change in Share
	Number	Share	Number	Share		
Asian	343,800	6.2%	288,400	6.3%	- 16.1%	+ 1.6%
Black	768,800	13.8%	664,000	14.5%	- 13.6%	+ 5.1%
Hispanic	1,456,900	26.2%	1,335,900	29.2%	- 8.3%	+ 11.5%
White	2,795,900	50.3%	2,106,100	46.0%	- 24.7%	- 8.5%
Multiracial	198,400	3.6%	184,300	4.0%	- 7.1%	+ 11.9%
All	5,563,800	100.0%	4,578,700	100.0%	- 17.7%	

Source: National Center for Education Statistics (2019 and 2024)

Similarly, there is no consistent relationship between the rates at which students completed community college certificate programs and their race or ethnicity. The number of students who earned a certificate increased by 10.3 percent overall from 2017 to 2022, and those completion rates were disproportionately large for multiracial, Hispanic, and Asian students, and disproportionately small for Black and White students (see Table 21).⁵⁵ Taking into account the overall increase, the shares of total certificates awarded declined from 2017 to 2022 among White and Black students, while increasing sharply among multiracial students, substantially among Hispanic students, and significantly among Asian students.

Table 21. Certificates Awarded at Two-Year Institutions by Race and Ethnicity, 2017 and 2022, and Shares of Total Certificates Awarded Each Year by Race and Ethnicity

	2017		2022		Percentage Change	Change in Share
	Number	Share	Number	Share		
Asian	44,856	4.9%	53,536	5.2%	+ 19.4%	+ 6.1%
Black	159,209	17.2%	166,933	16.4%	+ 4.9%	- 4.9%
Hispanic	202,731	21.9%	259,790	25.5%	+ 28.1%	+ 16.3%
White	493,302	53.3%	503,212	49.3%	+ 2.0%	- 7.5%
Multiracial	24,710	2.7%	36,938	3.6%	+ 49.5%	+ 34.1%
All	924,808	100.0%	1,020,409	100.0%	+ 10.3%	

Source: National Center for Education Statistics (2019 and 2023)

The changes in the rates at which students earned associate degrees by race and ethnicity were somewhat similar to the patterns in earning certificates. Overall, the number of students receiving associate degrees increased by 2.2 percent from 2017 to 2022, and those completion rates were very disproportionately large for multiracial, Hispanic, and Asian students, while the numbers of White and Black students earning associate degrees fell significantly (see Table 22).⁵⁶ Taking into account the moderate overall increase, the shares of all associate degrees awarded declined among White and Black students and increased very sharply among multiracial students, substantially among Hispanic students, and significantly among Asian students.

Table 22. Associate Degrees Earned at Two-Year Institutions by Race and Ethnicity, 2017 and 2022, and Shares of All Associate Degrees Awarded Each Year, by Race and Ethnicity

	2017		2022		Percentage Change	Change in Share
	Number	Share	Number	Share		
Asian	55,814	5.8%	67,575	6.9%	+ 21.0%	+ 19.0%
Black	129,880	13.5%	121,611	12.4%	- 6.4%	- 8.2%
Hispanic	209,159	21.8%	264,301	26.9%	+ 26.4%	+ 23.4%
White	551,057	57.4%	488,066	49.7%	- 11.40%	- 13.4%
Multiracial	14,858	1.5%	40,038	4.1%	+ 169.5%	+ 173.3%
All	960,768	100.0%	981,591	100.0%	+ 2.20%	

Source: National Center for Education Statistics (2019 and 2023)

The most notable change in the race and ethnicity of community college graduates from 2017 to 2022 was the sharp decline in White students who earned certificates and associate degrees, in both numbers and shares of the certificates and associate degrees.⁵⁷ Since, in theory, those results could be associated with a rising share of White students earning bachelor's degrees, we also examined that proposition, and the evidence did not support it (see Table 23 below).

The number of White students earning bachelor's degrees fell significantly from 2017 to 2022, as it did for certificates and associate degrees, despite the overall increase in those degrees. The numbers earning bachelor's degrees increased in every other group examined, especially Hispanic, multiracial, and Asian students. Taking account of the overall increase in new bachelor's degrees, the shares of all those degrees awarded also declined significantly among White students and moderately among Black students, while increasing substantially among the Hispanic, multiracial, and Asian students.

Table 23. Bachelor's Degrees Awarded by Race and Ethnicity, 2017 and 2022, and Shares of All Bachelor's Degrees Each Year by Race and Ethnicity

	2017		2022		Percentage Change	Change in Share
	Number	Share	Number	Share		
Asian	139,541	7.5%	170,278	8.9%	+ 22.0%	+ 18.7%
Black	196,338	10.6%	199,962	10.5%	+ 1.9%	- 0.9%
Hispanic	252,203	13.6%	325,929	17.1%	+ 29.2%	+ 25.7%
White	1,195,972	64.6%	1,129,570	59.2%	- 5.6%	- 8.4%
Multiracial	66,532	3.6%	81,658	4.3%	+ 22.7%	+ 19.4%
All	1,850,586	100.0%	1,907,397	100.0%	+ 3.0%	100.0%

Source: National Center for Education Statistics (2019 and 2023)

The Benefits of Occupational Education and Training

There is extensive documentation that a college education generally raises a graduate's income and their family's living standards throughout their life. We have reviewed extensive literature that has also established that people who complete community college certificate, diploma, and associate degree training and education programs similarly earn more throughout their lives, compared to demographically similar high school graduates and those who enrolled in those programs but did not complete them.⁵⁸ The benefits also vary substantially based on where people live, the program and field of study and training they pursue, and the graduate's gender.⁵⁹

Early studies found that occupational training and retraining have sustained benefits. An investigation of the impact of vocational training on the mid-career earnings of US soldiers in World War II and soon thereafter reported substantial income increases for those who directly applied the training in their careers, while those who received training and reported not using it did not see those higher earnings.⁶⁰ Another study from the late 1990s similarly found that the income benefits of vocational training courses for high school graduates increased steadily as the participants aged, a finding confirmed by subsequent analysts.⁶¹

The federal government's Job Corps is the country's largest vocational and academic training program for economically disadvantaged young people. Studies have found that, three to four years later, participants' average weekly earnings were 4 percent to 27 percent higher than those of control groups, depending on the training's occupational focus.⁶² Similarly, a review of associate degree graduates of community college occupational programs found that they earned up to 38 percent more than comparable high school graduates, with Hispanic and Black graduates reporting the largest benefits.⁶³ Analysts also found that an additional year of community college training was associated with 4 percent to 7 percent higher annual earnings.⁶⁴

Researchers have also recorded gender-based differences in the income benefits of occupational training. One study of community college diploma programs in fields such as accounting and practical nursing and associate degree vocational programs found that the income benefits for those completing the programs averaged \$9,600 for women compared to \$6,000 for men. However, the returns and benefits for completing community college vocational certificate programs were roughly equal for women and men at about \$1,200.⁶⁵

Similarly, a detailed study of graduates of associate degree vocational programs in Kentucky found that, six years after completing their programs, women's incomes were \$13,750 higher than those of their control group, compared to \$8,600 for men.⁶⁶ Other analysts found modest differences in the income benefits from community college vocational programs over time. Their study reported that the earnings over 20 years of people with vocational certificates or diplomas averaged 17 percent more than comparable high school graduates for men, versus 20 percent more for women.⁶⁷

The income benefits also may vary based on the occupational focus of the education and training program. A review of certificate and associate degree training programs at community colleges in Kentucky, Michigan, North Carolina, and California found those completing programs for health-related occupations saw the largest income benefits in all four states. After health-related jobs, the results diverged: Fields generating above-average benefits included business-related programs in Michigan, construction programs in North Carolina, and programs in engineering, legal services, and security services in California.⁶⁸ More generally, the earnings benefits of graduates of certificate and diploma programs were above average for women focused on business and computer and information services, and for men who completed programs in electronics and construction services, such as plumbing and electrical skills.

Losing a job can be a strong impetus to seek additional occupational education and training. In 2024, 20.2 million working Americans—or 12.9 percent of total US employees—were discharged or laid off from their jobs.⁶⁹ Based on Census Bureau data, they included about two million working people aged 25 to 34 without college degrees, the target pool for the Second Chance program covering the tuition costs of community college training programs.⁷⁰

For example, Washington State provides community college training programs for residents who lose their jobs when their employers close or move out of state. A study of participants found that displaced female workers who completed vocational diploma programs earned, on average, \$3,260 more annually than they did before losing their jobs, while displaced male workers who completed the programs earned \$2,155 more.⁷¹ Displaced Washington State workers who completed certificate programs saw more modest benefits, earning on average \$511 more than before annually. These results are notable because extensive research has also documented that when displaced workers find new jobs, those jobs pay, on average, significantly less than they earned previously.⁷²

Some studies have not found positive effects for older students completing selected vocational training certificate programs, when the benefits were measured by income gains minus tuition costs. One study of certificate programs in Ohio found flat returns for women.⁷³ Another analysis found mixed returns for certificate programs in California, and an examination of certificate

programs in Washington State found negative returns for certificate courses of less than one year.⁷⁴ The Second Chance policy examined here moot their results by relieving adult participants of any tuition or fee costs and shift “returns” to direct income benefits.

Researchers have also reported that, as expected, the income benefits of vocational certificate programs increase with the program’s course credit requirements. An examination of certificate programs at Virginia community colleges found that increases in earnings averaged \$590 (in 2025 dollars) for graduates of programs requiring less than one year of study and training, compared to earnings increases of \$970 for graduates of certificate programs requiring one to two years of study and training.⁷⁵

An analysis of 18,500 adults aged 21 to 31 who completed shorter- and longer-term certificate programs in North Carolina and Virginia also found the income benefits increased with the length of the program. In North Carolina, annual earning increases averaged \$1,700 for the shorter programs compared to nearly \$5,000 for longer programs; in Virginia, the increases averaged \$900 for shorter programs to \$1,200 for longer programs.⁷⁶

Evidence that occupational training and education benefit people who did not attend college or attended without graduating is not limited to the US. Germany is known for occupational training programs, and studies have found they have been effective in enabling job advancements by many types of students—women and men, older and younger, foreign-born and native born, and across occupations.⁷⁷ Other researchers have found that these programs produced the strongest results for high school graduates working in low-skill jobs, results similar to those found for welfare recipients who participated in and completed the Greater Avenues for Independence program training programs in Los Angeles.⁷⁸

Furthermore, studies of vocational training programs in Sweden and Finland found that the associated job and wage benefits were sustained for a decade by participants in both countries.⁷⁹ Similar programs in the US have had comparable outcomes.⁸⁰ And a review of “human capital training programs” in Organisation for Economic Co-operation and Development countries found significant earnings and employment benefits across those countries.⁸¹

Conclusions

Certificate and associate degree programs at public community colleges offer American adults a direct and reliable way to upgrade their skills and shift their occupations and jobs to raise their future earnings. Even so, the number of adults attending those programs has declined steadily for more than a decade, and the primary reason is the cost. Older students who enroll in community college programs bear substantial tuition and fee costs, on top of the earnings they forgo to pursue their studies. And while 33 states provide full community college tuition for new and recent in-state high school graduates, only three states offer comparable support for adults.

As technological advances regularly reshape the demands of American jobs, the Second Chance program would provide federal funding to cover community college tuition and fees for adults to help them adjust successfully to the current disruptive pressures on employment. We found that in the first 10 years of the Second Chance policy, an additional 1.2 million adults would enroll in community college programs, the share of this population that continue to pursue the programs would increase substantially, an additional 1.5 million adults would earn certificates or associate degrees or go on to earn bachelor's degrees, and the financial pressures on 22 million adult students and their families would ease markedly.

We further found that completing community college programs with Second Chance support would appreciably increase the near-term and lifelong earnings of the adult graduates and, as a result, generate large streams of additional federal revenues. The increased earnings by adults who received tuition support in the program's first 10 years would generate more than \$104 billion in real Social Security and income tax revenues over 30 years, or 4.8 times the program's \$22 billion cost over those 10 years.

Appendix

REGRESSION SPECIFICATIONS FOR EARNINGS EFFECTS OF A CERTIFICATE OR ASSOCIATE DEGREE

To estimate the impact of earning a certificate or associate degree, we used all individual Survey of Income and Program Participation (SIPP) respondents from 2018 to 2024 with the following characteristics: aged 25–34, graduated high school and had not earned a credential higher than a certificate or associate degree, and did not receive Social Security disability benefits. Using this sample, we estimated the following equations:

$$Earnings_{it} = \beta_0 + \beta_1 certification_i + \beta_2 male_i + age_i + year_t + \varepsilon_i \quad (1)$$

$$Earnings_{it} = \beta_0 + \beta_1 associate_i + \beta_2 male_i + age_i + year_t + \varepsilon_i \quad (2)$$

Where $Earnings_{it}$ is total annual earnings (in 2024 dollars) from waged or self-employment profits for person i in year t ; $certification_i$ is an indicator for having earned a certificate; $associate_i$ is an indicator for having earned an associate degree; $male_i$ is an indicator for being male; age_i is a vector of year-of-age fixed effects; and $year_t$ is a vector of calendar year fixed effects. In Equation (1), the sample is limited to high school graduates who either did not earn any higher credentials or earned only a certificate. In Equation (2), the sample is limited to high school graduates who either did not earn any higher credential or earned only an associate degree. Observations are weighted with survey weights provided by SIPP.

REGRESSION SPECIFICATIONS FOR THE ENROLLMENT EFFECTS OF NO-COST TUITION FOR ADULTS

To estimate the effects of the Tennessee and Michigan Reconnect programs on community college enrollments by older adults, we gathered institution-level fall enrollment data from 2011 to 2023 from IPEDS. We restricted the sample to institutions classified as public two-year institutions. We also restricted the sample to odd-numbered years since many institutions do not report their enrollment data to IPEDS in even-numbered years. For both the Tennessee and Michigan analyses, we used an event study specification to estimate the enrollment impact for each two-year period after the programs began.

Using this sample, we estimated the following equations:

$$\ln(\text{enrollment25})_{it} = \beta_0 + \sum_{t \neq 2017} \beta_t TN_{it} + \text{school}_i + \text{year}_t + \varepsilon_{it} \quad (3)$$

$$\ln(\text{enrollment25})_{it} = \beta_0 + \sum_{t \neq 2019} \beta_t MI_{it} + \text{school}_i + \text{year}_t + \varepsilon_{it} \quad (4)$$

Where $\ln(\text{enrollment25})_{it}$ is the natural log of 25-and-over fall enrollment in school i and year t ; TN_{it} is an indicator equal to one if the school is located in Tennessee and the observation is from year t , and zero otherwise; MI_{it} is similarly defined for Michigan; school_i is a set of school-fixed effects; and year_t is a set of year fixed effects. For both models, the reference year is the odd-numbered year preceding the beginning of the program—2017 for Tennessee and 2019 for Michigan. The coefficient of interest, β_t , represents the enrollment effect of the program for schools in Tennessee or Michigan in year t .

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Endnotes

1. Many community colleges also offer diploma programs that require more than one year but less than two years of training and study, covering fields such as accounting, practical nursing, and electrical repair. We do not analyze these diploma programs because government and private data do not systematically distinguish diploma programs from certificate or associate degree programs.
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5. National Center for Education Statistics (2023), Table 303.70.
6. National Center for Education Statistics (2023), Table 303.55.
7. National Student Clearinghouse Research Center (2025).
8. National Center for Education Statistics (2024), Table 326.30. The retention rate of part-time students at four-year colleges was 50 percent, nearly as low as community colleges.
9. National Center for Education Statistics (2023-C), Table 318.40; National Center for Education Statistics (2024-B), Table 322.20. The number of students graduating from four-year institutions with bachelor’s degrees also rose by 173,180 or 9.7 percent.

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29. Those results are available on request.
30. Average duration is calculated by one divided by the probability of exiting in a given year. This assumes a "constant hazard"—the probability of exiting is unaffected by how long a student has been in school. The National Student Clearinghouse data used for this analysis suggest that the probability of exit is roughly similar in years two to five, which would cover most students aged 25 and older.
31. National Student Clearinghouse (2025-A).
32. These calculations are available on request.
33. Retention rates are the percentage of students who return to the same school from the previous year (excluding those who graduate), and persistence refers to students that continue at the same school or transfer to a different school.
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36. There are two caveats: Some adult community college students who were not Reconnect grantees drop out for non-cost reasons, and differences in one-year persistence rates may not translate into ultimately earning a credential. The public data needed to estimate this difference are not available.
37. This calculation is based on analysis similar to the calculations for Table 5 above.
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41. To project the additional earnings and tax revenues over the 10 years, we assumed that the additional earnings began in 2026.
42. There will also be modest increases in revenues from state income taxes, beyond the scope of this study.
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50. National Center for Education Statistics (2019), Table 302.44.
51. Similarly, students from families in the top income quintile were 94 percent more likely to attend four-year institutions than those from families in the lowest income quintile and 28 percent more likely than those from households in the middle income quintile. Notably, across all undergraduate students, the likelihood of attending a public two-year or four-year institution, versus a private college, is not broadly tied to family income.

52. National Center for Education Statistics (2019-A), Table 326.40.
53. National Center for Education Statistics (2022), Table 306.20; Census Bureau (2024-A).
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