

THE IMPACT OF ARIZONA STATE UNIVERSITY GRADUATES EMPLOYED IN ARIZONA IN 2024

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Dennis Hoffman, Ph.D.

Professor, Department of Economics; and Director, Office of the University Economist

Eva Madly, M.S.

Senior Research Economist,
L. William Seidman Research Institute

Center for Competitiveness and Prosperity Research
L. William Seidman Research Institute
W. P. Carey School of Business
Arizona State University
Box 874011
Tempe, Arizona 85287-4011

(480) 965-5362

EMAIL: Dennis.Hoffman@asu.edu

ccpr.wpcarey.asu.edu

economist.asu.edu



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SUMMARY

Arizona State University (ASU) graduates are employed throughout the world. This paper examines only those graduates employed in Arizona — those contributing to the productivity and prosperity of the state.

Approximately 313,798 ASU graduates were working in Arizona in 2024. Approximately one-in-four of the state's working individuals who had earned at least a bachelor's degree had graduated from ASU. The aggregate earnings of the ASU graduates were around \$26.3 billion. Based on these earnings, these individuals contributed between \$1.94-and-\$2.19 billion in state and local government taxes, including between \$1.22 billion and \$1.37 billion in state government taxes, depending on the tax rate assumed.

The estimate of the number of ASU graduates working in Arizona in 2024 is based on actual employment and wage data for 215,634 individuals who graduated from ASU between 1990 and 2024 and were covered by the state's unemployment insurance program. Estimates of those who graduated from ASU prior to 1990 and of ASU graduates who were not covered by the unemployment insurance program but were working in Arizona in 2024 were added to the 215,634 figure to reach the total of approximately 313,798.

The estimated number of ASU graduates employed in Arizona increased an average of 3.7 percent per year between 2012 and 2024. Over the last 12 years, the number of employed ASU graduates as a share of the state's total employment increased, from 6.17 percent to 7.04 percent. ASU's share increased in most, but not all, years.

The inflation-adjusted estimated aggregate earnings of ASU graduates employed in Arizona rose an average of 5.0 percent per year between 2012 and 2024. Over the 12 years, the aggregate earnings of employed ASU graduates as a share of the state's total aggregate earnings climbed, from 8.28 percent to 9.40 percent. ASU's share advanced in most, but not all, years.

The larger increase in real aggregate earnings than employment indicates that real average earnings per worker rose for ASU graduates. The annual average increase between 2012 and 2024 was 1.2 percent. However, the average earnings of ASU graduates did not increase quite as much as the state's overall figure. The average earnings of ASU graduates was 134.3 percent of the total in 2012, but was 133.5 percent in 2024.

The estimated share of Arizona workers holding at least a bachelor's degree who are a graduate of ASU did not change much during the last 12 years, ranging from 24.7 percent to 26.9 percent. The figure was at its lowest in 2025, at 24.7 percent.

DESCRIPTION OF DATA

University Graduates Employed in Arizona

For each year from 2012 through 2024, the Arizona Board of Regents (ABOR) has created a dataset of graduates of Arizona's three public universities who were employed in Arizona during the year. While the ABOR dataset includes the number of "degrees awarded," this number really refers to the number of individuals earning a degree. An individual earning more than one degree is counted only once in this dataset, categorized in the year of the most recent degree. Thus, the dataset's number of "degrees awarded" is less than the official number of degrees awarded.

The ABOR dataset is created by matching Social Security numbers of university graduates to the numbers in the unemployment insurance file maintained by the Arizona Department of Economic Security, which works in conjunction with the U.S. Department of Labor. Reporting from the unemployment insurance file — the Quarterly Census of Employment and Wages (QCEW) — is done quarterly, with annual average figures also produced.

Each quarter, every business that employs workers covered by the state's unemployment insurance program must report (1) employment in each of the three months of the quarter during the pay period that includes the 12th day of the month and (2) total wages paid by the business during the quarter. Federal government civilian workers covered by the comparable federal unemployment insurance program also are included in the reporting.

Various members of the workforce are not included in the QCEW: most agricultural workers on small farms, those self-employed, those in the Armed Forces, and various others. Reporting is by job, not by individual — an individual working more than one covered job will appear in the file more than once.

Since the unemployment insurance records are confidential, ABOR's dataset of graduates employed in Arizona includes only aggregate totals. There are two significant limitations to this dataset. First, the unemployment insurance file does not include a significant number of workers — in 2024, the employment count from the unemployment insurance file was only 72 percent of the total employment in Arizona, as reported by the U.S. Bureau of Economic Analysis (BEA). Second, the dataset of graduates employed in Arizona constructed by the Board of Regents only includes graduates since 1990. Thus, the number of graduates of Arizona's public universities who are working in Arizona is understated significantly. This understatement effectively becomes even larger when the number of *individuals* counted in the Board of Regents dataset is compared to the total number of *jobs* reported in the QCEW.

The dataset constructed by the Board of Regents is subdivided by various characteristics:

- university
- bachelor's degrees versus graduate degrees
- those who attended school as Arizona residents versus nonresidents

The analysis described in this paper uses a dataset specific to Arizona State University (ASU) provided by ASU's Office of the University Provost.

By year of graduation, the following data items are available from the dataset of university graduates employed in Arizona:

- number of graduates
- number employed in Arizona (in any quarter during the year)
- percent of graduates employed in Arizona
- total and median wages of graduates employed in Arizona
- estimated state taxes paid by graduates employed in Arizona
- number employed in Arizona in all four quarters
- total and median wages of those employed in Arizona in all four quarters

The number of graduates is reported by academic year — for example, for 2024, the sum of the number graduating in August 2023, December 2023, and May 2024. The employment data are for calendar year 2024.

While the median wage of those employed in all four quarters is a reasonable measure of the typical annual wage of graduates included in the dataset, use of the median wage is arithmetically quite limited. Thus, the average wage of those employed in any quarter during the year also is calculated, as total wages divided by the total number employed.

Employment

The employment figures reported in the QCEW are based on a census of all covered workers and therefore are highly accurate, but as noted above, a large number of workers are not covered by the unemployment insurance program. Thus, focusing only on those covered by the program significantly understates the contribution of university graduates to the Arizona economy.

Employment estimates are available from several sources, but these estimates are not consistent due to definitional differences (certain categories of workers may be excluded by one source but not by another), differences in the way the data are collected (such as a sample of employers versus a census), and timing differences in when the data are collected. In order to provide a more complete picture of the economic activity in Arizona of ASU graduates, more complete employment estimates from the BEA are used in this report.

Most of the employment estimates, including those of the QCEW and BEA, do not differentiate between a person working full time and one working fewer hours. Employment is categorized by the place of work, not by where the worker lives. For example, an Arizona resident of Bullhead City who works across the Colorado River in Laughlin, Nevada is counted in the Nevada employment figures. Further, most of the employment estimates report the number of jobs, not the number of people employed — an individual working two jobs is counted twice in the employment figures. This is an important distinction when comparing the number of ASU graduates (individuals) employed in Arizona to total employment (number of jobs).

Unlike other employment estimates, the employment data reported from the American Community Survey (ACS) reflects the number of individuals working and workers are classified by place of residence. The ACS is an ongoing survey of households conducted by the U.S. Census Bureau that is the source of a wide variety of socioeconomic data. The main shortcoming of the ACS is that it is based on a relatively small number of households. Sampling error can be a

significant concern. The accuracy of self-reporting, particularly for questions related to wages and income, also is an issue. Various ACS tables provide insight on employment in Arizona. The ACS employment figures are based on an individual's employment status at the time the questionnaire is completed.

Educational Attainment

In order to provide context on the contribution of ASU graduates employed in Arizona, the educational attainment of the Arizona workforce is examined. The ACS is the best source of data on educational attainment at a subnational level. In this report, Arizona's educational attainment is compared to the nation using three ACS tables: attainment for the population age 25 and older, attainment in each of five age groups, and attainment by labor force status among those 25-to-64 years old.

While ACS data for five years often are combined to reduce sampling error, the ACS data from 2024 are used in this analysis in order to be consistent with the Board of Regents dataset. For Arizona, sampling error for a single year of ACS data ranges from insignificant for broad measures to significant for small subsets of the population. Thus, the attainment data for the entire population at least 25 years of age is more reliable than the data for each of five age groups.

The Impact of College Graduates on the Workforce

Educational attainment is strongly correlated to an individual's earnings, with a bachelor's degree in particular causing a boost in earnings. The higher earnings realized over a lifetime of work greatly exceeds the costs of attending college.¹ Society also benefits from an educated populace in various ways, such as the lower crime rates of educated individuals.²

One of the benefits of having highly educated individuals in the workforce is to raise the wages of the entire workforce. Enrico Moretti specified this relationship in his 2004 *Journal of Econometrics* paper, "Estimating the Social Return to Higher Education: Evidence From Longitudinal and Repeated Cross-Sectional Data."³ The spillover of benefits to all workers can be traced to the enhanced worker productivity associated with greater educational attainment. Improved productivity results from the sharing of knowledge and skills across workers and from shifts in the industrial mix to knowledge-based activities. These productivity gains translate into higher output and earnings.⁴

¹ See "Has the Return to Investing in a College Education Declined?," December 2013, and earlier papers at <https://economist.asu.edu/reports>.

² See "Benefits From Improving Educational Attainment in Arizona," August 2012, <https://economist.asu.edu/reports/benefits-from-improving-educational-attainment-in-arizona> and earlier papers at <https://economist.asu.edu/reports>.

³ Accessible from <https://eml.berkeley.edu/~moretti/socret.pdf>.

⁴ See "The Economic Impact of Raising the Educational Attainment of Arizona's Workforce; 2019 Update," July 2019, <https://economist.asu.edu/reports/the-economic-impact-of-raising-the-educational-attainment-of-arizonas-workforce-2019-update>.

ARIZONA STATE UNIVERSITY GRADUATES EMPLOYED IN ARIZONA IN 2024

Employment

According to the QCEW, annual average Arizona employment in 2024 totaled 3,222,450. The BEA's wage and salary employment estimate was 3,364,573, meaning that 142,123 wage and salary workers were not covered by unemployment insurance. The BEA estimates that the number of proprietors (self-employed, also not included in the QCEW) was 1,092,933, for a total employment figure of 4,457,506.

According to the ACS, an estimated 3,606,425 Arizonans were employed in 2024 in civilian jobs; an additional 23,856 were members of the armed forces. The total of 3,630,281 is 81 percent of the BEA's total number of jobs, suggesting that many workers (1) are employed by more than one business and/or (2) hold a wage and salary job as well as report self-employment income. Other data from the ACS indicates that 22 percent of employed Arizonans worked less than 35 hours per week.

Educational Attainment

Most commonly, educational attainment is expressed for those at least 25 years old. Though the age of 25 is arbitrary, a high proportion of individuals have completed their educations by that age. In 2024, Arizona's educational attainment in this large cohort was inferior to the nation. The share without either a high school diploma or a GED (general education development) certificate was higher in Arizona: 10.3 percent versus 10.1 percent nationally. Relative to the nation, lesser shares of Arizonans had earned a bachelor's degree (20.9-versus-22.1 percent nationally) and a graduate degree (13.8-versus-14.7 percent nationally).

An examination of educational attainment by age group reveals that Arizona was particularly far below the nation among those younger than 35 in 2024. Arizona also was below average among those 35-to-64 years old. In contrast, the educational attainment of those 65 and older was higher in Arizona than nationally. Since few of those age 65 and older are working, the standard statistics on the entire 25-and-older population understate Arizona's educational disadvantage as it applies to the workforce.

Data on educational attainment by labor force status indicate that among those in the workforce, the educational attainment in Arizona of those 25-to-64 years old was below the national figure in 2024. The proportion of those working in a civilian job who had earned at least a bachelor's degree was 39.3 percent in Arizona and 43.1 percent nationally.

Arizona State University Graduates Employed in Arizona

Detailed figures from the dataset of 1990-through-2024 graduates of Arizona State University who were employed in Arizona during 2024 are provided in the appendix. Data are shown by undergraduate versus graduate degree and by residency status while a student.

ABOR's data for graduates in the most recent academic year need to be interpreted carefully. A significant proportion of those graduating in academic year 2024 graduated in May 2024. The employment and wage information for these individuals in calendar year 2024 may reflect part-time employment prior to graduation and/or full-time employment after graduation. In the latter

case, the wage data are for less than a year of full-time employment. For those graduating in academic year 2024, the average wage and median wage is very low and the percentage employed in all four quarters is very low compared to those graduating in prior years.

The following are among the basic conclusions that can be reached using the dataset of ASU graduates from academic years 1990 through 2024:

- The number of individuals earning a degree has increased significantly over time, by 436 percent overall between 1990 and 2024.
- The increase in the number of individuals earning a degree has been higher for graduate students than undergrads, and much higher for those who were classified as nonresidents while attending school than among those classified as residents.
- In 2024, the shares of the total number of graduates were 33.6 percent for resident undergraduates, 29.0 percent for nonresident undergraduates, 9.2 percent for resident graduate students, and 28.2 percent for nonresident graduate students.
- The percentage of graduates employed in Arizona is much higher for residents than nonresidents.
- The share of graduates employed in Arizona decreases significantly with the number of years since graduation, regardless of residency status while students.
- The percentage employed in all four quarters was less than 80 percent among recent graduates but generally was greater than 80 percent among older graduates.
- The average wage and the median wage increase significantly with the number of years elapsed since graduation, though this effect weakens with the number of years elapsed.
- The median wage and the average wage are somewhat higher for those who were classified as nonresidents.
- The average wage exceeds the median wage (for graduates employed in all four quarters, as well as for graduates employed at some point during the year) presumably because of a small number of graduates earning very high wages that boosts the average but not the median. The difference between average and median wages is larger for older graduates.

The number of individuals who graduated from ASU between academic years 1990 and 2024 who worked at jobs in Arizona that were covered by the unemployment insurance program in calendar year 2024 was 215,634. ASU graduates between 1990 and 2024 accounted for 6.6 percent of the QCEW total number employed, but this share is understated since it compares *individuals* with ASU degrees to the *number of jobs*.

The aggregate wages of individuals who graduated from ASU between academic years 1990 and 2024 (\$20.0 billion) accounted for 8.8 percent of the QCEW total. ABOR estimates that “state tax revenue” (really, state and local government tax revenue in Arizona) in 2024 by those who graduated from ASU between 1990 and 2024 — based only on wages earned as part of the unemployment insurance program — was \$1.67 billion: 8.32 percent of aggregate wages.

A summary of the ASU graduates from 1990 through 2024 is provided in the top portion of Table 1. The bottom portion of Table 1 focuses on academic year 2023 graduates.⁵ Table 1 needs

⁵ Graduates from 2023 instead of 2024 are used since the statistics for those graduating in May 2024 are affected by part-time wages earned while a student and less than full-year wages after graduation.

to be interpreted carefully. Student characteristics vary by residency status and by undergraduate and graduate programs. For example, the magnitude of the difference in the average wage between undergraduate and graduate degrees in 2023 reflects not only the wage premium of the graduate degree but also the greater number of years of work experience prior to graduation among those with a graduate degree. The differential in the average wage of those with undergraduate and graduate degrees declines with the number of years of work experience. Among graduates from academic year 2023, the average wage in 2024 of those with a graduate degree was 56 percent higher than those with a bachelor's degree, but the differential for graduates over the entire 1990-to-2024 period was 30 percent. According to the 2024 ACS, all Arizona workers with a graduate degree (including those graduating before 1990) earned 22 percent more than those who had earned a bachelor's degree.

Alternative Estimates of Taxes Paid

ABOR estimated state and local government tax payments in 2024 based on the following income levels and tax rates:

- Less than \$25,001: 15.3 percent
- \$25,001 to \$75,000: 8.3 percent
- \$75,001 to \$100,000: 8.2 percent
- \$100,001 to \$150,000: 8.1 percent
- More than \$150,000: 8.2 percent

The average tax rate of ASU graduates between 1990 and 2024 who worked in Arizona in 2024 was 8.32 percent.

ABOR's tax rates come from an annual study of tax burdens produced by the government of the District of Columbia.⁶ The latest study is for 2022. In previous reports, ABOR had used the 2007 version of the District of Columbia study that resulted in an average tax rate of approximately 7.1 percent.

The effective tax rate varies over time with the strength of the economy and due to changes in tax laws. In previous versions of this report, the ASU authors reviewed the tax rate from the annual District of Columbia study but ultimately chose to use the rate estimated in a periodic study by the Institute on Taxation and Economic Policy (ITEP) for those of medium-high incomes, the income quartile containing the average wage of ASU graduates employed in Arizona as reported by the ABOR. This resulted in applying a tax rate of 8.2 percent prior to 2017 and 8.5 percent from 2017 through 2021.

Through tax year 2021, Arizona applied a graduated-rate individual income tax. In 2021, the rate ranged from 2.59 percent for those with low incomes to 4.5 percent for those with high incomes. A major change to Arizona's individual income tax was passed by the Legislature in 2021, transitioning from a graduated-rate structure to a single, and lower, rate. In tax year 2022, those with low incomes were taxed at 2.55 percent, while everyone else paid 2.98 percent. Since ITEP does not publish its estimates annually, the authors of this report lowered the previously used 8.5

⁶ "Tax Rates and Tax Burdens in the District of Columbia — A Nationwide Comparison," Government of the District of Columbia, https://ora-cfo.dc.gov/sites/default/files/dc/sites/ora-cfo/publication/attachments/2022%2051City%20Study_Final.pdf

**TABLE 1
ARIZONA STATE UNIVERSITY GRADUATES**

	Total	Total Under-grad Degrees	Resident Under-grad Degrees	Non-resident Undergrad Degrees	Total Graduate Degrees	Resident Graduate Degrees	Non-resident Graduate Degrees
Graduates From 1990 Through 2024:							
Number Graduating From Arizona State University Employed in Arizona and Covered by the Unemployment Insurance Program in 2024:	529,692	365,472	254,355	111,117	164,220	78,333	85,887
Number	215,634	163,447	146,896	16,551	52,187	41,278	10,909
Share of Graduates (Percent)	41	45	58	15	32	53	13
Aggregate Wages (Dollars, Millions)	20,019	14,164	12,777	1,387	5,855	4,704	1,151
Average Wage (Dollars)	92,838	86,658	86,977	83,827	112,194	113,959	105,513
Estimated State and Local Government Tax Payments (Dollars, Millions)	1,666	1,182	1,065	116	484	389	96
Graduates From 2023:							
Number Graduating From Arizona State University Employed in Arizona and Covered by the Unemployment Insurance Program in 2024:	34,346	21,969	11,728	10,241	12,377	3,225	9,152
Number	14,643	10,849	9,153	1,696	3,794	2,476	1,318
Share of Graduates (Percent)	43	49	78	17	31	77	14
Aggregate Wages (Dollars, Millions)	805	521	443	78	284	189	94
Average Wage (Dollars)	54,962	48,050	48,440	45,945	74,728	76,393	71,600
Estimated State and Local Government Tax Payments (Dollars, Millions)	69	45	38	7	24	16	8

Source: Arizona Board of Regents, provided by Arizona State University, Office of the University Provost.

percent rate to 7.9 percent in 2022 to reflect this major change in the tax code. In tax year 2023, the single rate of 2.5 percent became effective. To reflect this additional change, the authors have lowered the tax rate to 7.4 percent for 2023 and 2024.

ITEP came out with a new version of its report in early 2024 that reflected the tax laws in effect at the time in each state.⁷ Inexplicably, they estimated a tax rate of 9.1 percent in Arizona for those with medium-high incomes in 2023 — higher than their prior estimate of 8.5 percent despite the large reduction in Arizona’s individual income tax rate.

Using the 7.4 percent tax rate and the aggregate wage figures from the ABOR dataset, Arizona state and local government taxes paid on QCEW wages by those who graduated from ASU between 1990 and 2024 was approximately \$1.48 billion in 2024, compared to ABOR’s estimate of \$1.67 billion.

In order to estimate the amount of taxes paid just to state government, U.S. Census Bureau data were used. In fiscal year 2023, state tax collections accounted for 63.7 percent of combined state and local government tax collections in Arizona.⁸ Applying this percentage to the estimates of state and local government taxes paid on QCEW wages by those who graduated from ASU between 1990 and 2024, the result is \$1.05 billion based on ABOR’s estimate of state and local government taxes and \$930 million based on the 7.4 percent state and local government tax rate.

Extending the Analysis to Include Those Who Graduated From ASU Before 1990

In order to provide an estimate of the number of individuals who graduated from ASU before 1990 and who were working in Arizona in 2024, actual data on the number of degrees awarded by ASU before 1990 were collected, with the earliest data from 1971. The official graduation data from ASU count number of degrees — individuals with more than one ASU degree are counted more than once. These data are not consistent with the figures used in the Arizona Board of Regents dataset, which counts individuals, not number of degrees. Thus, in order to estimate the number of individuals who had earned a degree from ASU before 1990, the historical graduation data for the years before 1990 were adjusted, using the ratio from the 1990-through-1999 period of the number of graduates counted in the Board of Regents database to the official count of degrees granted. The ratio was 88.6 percent for those with an undergraduate degree, 91.2 percent for those with a graduate degree, and 89.3 percent for all graduates.

In order to estimate the number of ASU graduates from before 1990 who were working in Arizona in 2024 and counted in the unemployment insurance program, a “backward projection” was made of the percentage of ASU graduates who were employed in Arizona in 2024. The percentage drops with the number of years since graduation; the rate of decline is rapid among recent grads but is lower and relatively stable among earlier graduates. The average annual decrease of 1.42 percentage points between 1990 and 1999 was used for the pre-1990 period. Using the adjusted graduation figures and the estimated percentage of graduates employed in Arizona, the number of employed ASU graduates was calculated by year for the pre-1990 period.

⁷ Institute on Taxation & Economic Policy, *Who Pays? A Distributional Analysis of the Tax Systems in All 50 States, Seventh Edition*, January 2024, <http://www.itep.org/whopays/>

⁸ U.S. Department of Commerce, Census Bureau, State and Local Government Finance, <https://www.census.gov/programs-surveys/gov-finances.html>

The average wage for graduates in the pre-1990 period was backward projected in the same manner as the percentage employed. The average wage rises significantly by the number of years since graduation for relatively recent graduates. Among earlier graduates, the increase in the average wage by year is lower and more stable. The annual average increase from the 1990-through-1999 period was 0.81 percent; this figure was applied to the pre-1990 period.

Using these backward projections, the number of individuals who graduated from ASU through academic year 2024 who worked at jobs in Arizona that were covered by the unemployment insurance program in 2024 is estimated to be 226,853 — 5.2 percent higher than the number of those who graduated from 1990 through 2024. Due to the high average wage of individuals who graduated prior to 1990, the differential in the aggregate wage of the entire set of ASU graduates relative to the 1990-to-2024 group was greater at 6.5 percent.

This methodology does not directly address the increasing share of retirees among older ASU graduates. While the percentage of ASU graduates working in Arizona declines with the number of years since graduation over the 1990-to-2024 period, this decrease presumably occurs mostly due to out-migration. Few ASU graduates since 1990 — most of whom were less than 58 years old in 2024 — are likely to have retired. In contrast, retirement becomes increasingly likely among those who graduated before 1985. Thus, the estimates of the numbers employed in Arizona of graduates from this time period may be overstated. However, the methodology estimates that less than 7 percent of 1971-through-1984 graduates were employed in Arizona in 2024. Further, it seems unlikely that the rate of out-migration from Arizona for job-related reasons would be as high among those approaching retirement age as among those who are younger. Thus, the estimated number of older ASU graduates working in Arizona is believed to be reasonable.

Those who have graduated from ASU accounted for 7.0 percent of the QCEW number of jobs in Arizona in 2024, but again this share is understated since it compares *individuals* with ASU degrees to the *number of jobs*. The aggregate wage of individuals who have graduated from ASU accounted for 9.4 percent of the QCEW total. The 2024 average wage of \$94,000 of those who have graduated from ASU was 33.5 percent higher than the average of the rest of the QCEW file (a group that includes those without a bachelor's degree and those who earned a degree from another institution). Based on the 8.32 percent tax rate and estimated QCEW wages, ASU graduates paid \$1.77 billion in state and local government taxes in 2024, of which \$1.11 billion was paid to state government. Using the 7.4 percent tax rate, state and local government taxes paid amounted to \$1.58 billion, of which \$990 million was paid to state government.

Estimates from the ACS for 2024 indicate that 1,120,783 Arizona residents between the ages of 25 and 64 who had received at least a bachelor's degree were employed in civilian jobs. Based on various data from the ACS, the estimated total number of people working in civilian jobs in Arizona in 2024 who have earned a bachelor's or higher degree is 1,269,267. The estimated number of ASU graduates employed in the state and covered by the unemployment insurance program accounts for 17.9 percent of the estimated number of civilian workers with at least a bachelor's degree.

Extending the Analysis to Include ASU Graduates Employed in Arizona but Not Covered by the Unemployment Insurance Program

In order to estimate the number of ASU graduates working in Arizona in wage and salary jobs not covered by unemployment insurance or as proprietors (self-employed), the ASU shares of the QCEW total (7.04 percent of employment and 9.40 percent of wages) were applied to the BEA's total employment figure. The result is a total of 313,798 ASU graduates working in Arizona in 2024 (see Table 2). This figure is understated because the 7.04 percent figure is based on individuals with ASU degrees and the number of QCEW jobs.

The estimate of 313,798 ASU graduates working in Arizona accounts for 24.7 percent of the estimated number of employed Arizonans with at least a bachelor's degree in 2024. Thus, approximately one-in-four working individuals in Arizona who had earned at least a bachelor's degree had graduated from ASU. The aggregate earnings of the ASU graduates were around \$26.3 billion. Based on the 8.32 percent tax rate and \$26.3 billion in earnings, ASU graduates paid \$2.19 billion in state and local government taxes in 2024, of which \$1.37 billion was paid to state government. Using the 7.4 percent tax rate, state and local government taxes paid amounted to \$1.94 billion, of which \$1.22 billion was paid to state government.

The Impacts of ASU Graduates on the Workforce

The estimates of 313,798 ASU graduates working in Arizona, earning \$26.3 billion, and paying between \$1.94 and \$2.19 billion in state and local government taxes do not provide a complete accounting of the impacts of ASU graduates on the Arizona economy. College graduates in the workforce boost the productivity of all workers, which results in an increase in wages for all

TABLE 2
ARIZONA STATE UNIVERSITY GRADUATES EMPLOYED IN ARIZONA IN 2024
COMPARED TO TOTAL EMPLOYMENT IN ARIZONA

	Employment	Aggregate Earnings*	Average Earnings
Employment in Arizona:			
QCEW Wage and Salary	3,222,450	\$226,881	\$70,406
Other Wage and Salary From BEA	142,123	14,646	103,052
Total Wage and Salary From BEA	3,364,573	241,527	71,785
Proprietors From BEA	1,092,933	37,991	34,761
Total From BEA	4,457,506	279,518	62,707
ASU Graduates Employed in Arizona:			
QCEW Wage and Salary, 1990 Through 2024	215,634	20,019	92,838
Estimate From Before 1990	11,219	1,305	116,339
Total QCEW Wage and Salary	226,853	21,324	94,000
Other Wage and Salary Plus Proprietors	86,945	4,947	56,902
Total	313,798	26,272	83,721
ASU Share of Total Employment in Arizona	7.04%	9.40%	133.51%

* In millions. Consists of wages and salaries and proprietors' income.

Sources: Calculated from U.S. Department of Labor, Bureau of Labor Statistics (QCEW: Quarterly Census of Employment and Wages); U.S. Department of Commerce, Bureau of Economic Analysis (BEA); and Arizona Board of Regents from Arizona State University, Office of the University Provost.

workers. This is discussed in the May 2019 University Economist Paper, “The Economic Impact of Raising the Educational Attainment of Arizona's Workforce: 2019 Update,” <https://economist.asu.edu/reports/the-economic-impact-of-raising-the-educational-attainment-of-arizonas-workforce-2019-update>.

ARIZONA STATE UNIVERSITY GRADUATES EMPLOYED IN ARIZONA, 2012 THROUGH 2024

The estimated number of ASU graduates employed in Arizona increased an average of 3.7 percent per year between 2012 and 2024, with the annual percent change ranging from 2.2 percent to 6.3 percent. The annual rate of change depends on numerous factors, including overall economic growth. Over the last 12 years, the number of employed ASU graduates as a share of the state’s total employment increased, from 6.17 percent to 7.04 percent. ASU’s share increased in most, but not all, years (see Table 3).

The inflation-adjusted estimated aggregate earnings of ASU graduates employed in Arizona rose an average of 5.0 percent per year between 2012 and 2024, with the annual percent change ranging widely from -0.3 percent (in 2021) to 7.8 percent (in 2022). Over the last 12 years, the aggregate earnings of employed ASU graduates as a share of the state’s total aggregate earnings climbed, from 8.28 percent to 9.40 percent. ASU’s share increased in most, but not all, years.

The larger increase in real aggregate earnings than employment indicates that real average earnings per worker rose for ASU graduates. The annual average increase between 2012 and 2024 was 1.2 percent, with the annual range from -6.2 percent to 4.3 percent. However, the average earnings of ASU graduates did not increase quite as much as the state’s overall figure. The average earnings of ASU graduates was 134.3 percent of the total in 2012, but was 133.5 percent in 2024.

The estimated share of Arizona workers holding at least a bachelor’s degree who are a graduate of ASU did not change much during the last 12 years, ranging from 24.7 percent to 26.9 percent. The figure was at its lowest in 2024, at 24.7 percent.

TABLE 3
SUMMARY OF ARIZONA STATE UNIVERSITY GRADUATES EMPLOYED IN ARIZONA, 2012 THROUGH 2024

	Employment		Aggregate Earnings		Average Earnings		Estimated State and Local Government Tax Payments in Millions of 2024 Dollars		Share of Workforce With a University Degree
	Number	Share of Total	Millions of 2024 Dollars	Share of Total	2024 Dollars	Share of Total	ABOR*	Authors^	
2012	203,372	6.17%	\$14,710	8.28%	\$73,332	134.3%	\$1,058	\$1,206	25.6%
2013	211,576	6.27	15,599	8.55	73,728	136.4	1,119	1,279	26.4
2014	219,106	6.35	16,268	8.71	74,245	137.2	1,164	1,334	26.9
2015	223,985	6.31	16,921	8.68	75,543	137.6	1,209	1,387	26.9
2016	231,010	6.34	17,566	8.70	76,042	137.2	1,254	1,440	25.9
2017	238,834	6.41	18,750	8.82	78,508	137.6	1,335	1,594	25.6
2018	249,691	6.47	19,525	8.94	78,195	138.2	1,386	1,660	25.6
2019	259,883	6.55	20,730	9.03	79,768	137.9	1,468	1,762	25.7
2020	266,716	6.97	22,181	9.23	83,165	132.5	1,569	1,885	26.4
2021	283,429	6.99	22,123	8.85	78,055	126.7	1,563	1,880	25.8
2022	297,148	6.93	23,841	9.17	80,231	132.4	1,679	1,883	25.8
2023	306,150	6.98	24,711	9.32	80,716	133.4	2,060	1,829	25.5
2024	313,798	7.04	26,272	9.40	83,721	133.5	2,186	1,944	24.7

* The tax payment based on the tax rate used by the Arizona Board of Regents: approximately 7.1 percent from 2012 through 2022, 9.34 percent for 2023, and 8.32 percent for 2024.

^ The tax payment based on the tax rate assumed by the authors of this report: 8.2 percent from 2012 through 2016; 8.5 percent from 2017 through 2021; 7.9 percent for 2022; and 7.4 percent for 2023 and 2024.

Source: Calculated by authors.

APPENDIX
ARIZONA STATE UNIVERSITY GRADUATES FROM 1990 THROUGH 2024 EMPLOYED IN ARIZONA IN 2024:
DETAIL BY CATEGORY OF DEGREE

Source: Arizona Board of Regents, from Arizona State University, Office of the University Provost.

ALL DEGREES: 2024

Academic Year of Graduation	Number Earning a Degree	Number Employed in Arizona	Percent Employed in Arizona	Aggregate Wages in Millions	Average Wage	State & Local Government Tax Payments in Millions	Number Employed During All Four Quarters	Percent Employed in All Four Quarters
1990	6,747	1,614	23.9%	\$196.6	\$121,828	\$16.3	1,352	83.8%
1991	7,127	1,933	27.1	253.6	131,183	21.0	1,650	85.4
1992	7,092	2,017	28.4	245.8	121,867	20.3	1,713	84.9
1993	7,643	2,213	29.0	264.0	119,304	21.8	1,891	85.4
1994	7,748	2,351	30.3	291.2	123,869	24.1	2,041	86.8
1995	8,081	2,643	32.7	344.0	130,167	28.5	2,275	86.1
1996	8,025	2,765	34.5	345.4	124,916	28.6	2,376	85.9
1997	8,535	3,019	35.4	386.9	128,170	32.0	2,647	87.7
1998	9,097	3,306	36.3	420.9	127,315	34.8	2,889	87.4
1999	9,200	3,305	35.9	428.0	129,512	35.4	2,878	87.1
2000	9,605	3,659	38.1	483.0	132,003	39.8	3,268	89.3
2001	9,339	3,612	38.7	467.7	129,486	38.6	3,192	88.4
2002	9,851	3,973	40.3	493.5	124,208	40.8	3,471	87.4
2003	10,430	4,258	40.8	536.7	126,042	44.3	3,756	88.2
2004	11,008	4,621	42.0	561.9	121,595	46.4	4,111	89.0
2005	11,257	4,813	42.8	604.4	125,575	49.9	4,280	88.9
2006	11,588	4,976	42.9	591.3	118,839	48.8	4,437	89.2
2007	11,956	5,221	43.7	616.1	118,012	50.9	4,631	88.7
2008	12,611	5,395	42.8	655.4	121,482	54.1	4,790	88.8
2009	13,598	5,632	41.4	658.8	116,967	54.4	4,950	87.9
2010	14,257	6,329	44.4	700.9	110,741	57.9	5,542	87.6
2011	14,695	6,550	44.6	711.2	108,576	58.8	5,720	87.3
2012	15,332	6,974	45.5	727.2	104,269	60.1	6,111	87.6
2013	16,055	7,250	45.2	724.6	99,944	60.0	6,268	86.5
2014	16,862	7,509	44.5	749.0	99,749	62.0	6,549	87.2
2015	18,069	7,874	43.6	748.7	95,081	61.9	6,797	86.3
2016	18,956	7,928	41.8	725.2	91,469	60.1	6,850	86.4
2017	20,322	8,465	41.7	725.2	85,674	60.1	7,264	85.8
2018	22,744	9,153	40.2	763.1	83,372	63.4	7,864	85.9
2019	24,238	9,722	40.1	760.1	78,180	63.2	8,267	85.0
2020	26,378	10,748	40.7	785.1	73,048	65.6	9,081	84.5
2021	29,296	11,806	40.3	796.7	67,486	66.9	9,804	83.0
2022	31,455	13,076	41.6	820.3	62,731	69.2	10,778	82.4
2023	34,346	14,643	42.6	804.8	54,962	68.9	11,568	79.0
2024	36,149	16,281	45.0	631.7	38,799	57.4	10,216	62.7
TOTAL	529,692	215,634	40.7	20,019.0	92,838	1,666.0	181,277	84.1

ALL UNDERGRADUATE DEGREES: 2024

Academic Year of Graduation	Number Earning a Degree	Number Employed in Arizona	Percent Employed in Arizona	Aggregate Wages in Millions	Average Wage	State & Local Government Tax Payments in Millions	Number Employed During All Four Quarters	Percent Employed in All Four Quarters
1990	5,021	1,353	26.9%	\$160.8	\$118,837	\$13.3	1,147	84.8%
1991	5,269	1,615	30.7	211.7	131,055	17.5	1,396	86.4
1992	5,335	1,697	31.8	202.2	119,162	16.7	1,458	85.9
1993	5,636	1,793	31.8	215.8	120,380	17.8	1,554	86.7
1994	5,610	1,916	34.2	236.7	123,560	19.5	1,683	87.8
1995	5,722	2,127	37.2	261.3	122,838	21.6	1,841	86.6
1996	5,763	2,170	37.7	254.5	117,299	21.0	1,885	86.9
1997	6,070	2,362	38.9	293.1	124,104	24.2	2,075	87.8
1998	6,561	2,611	39.8	318.9	122,126	26.3	2,302	88.2
1999	6,572	2,546	38.7	298.5	117,226	24.7	2,244	88.1
2000	6,980	2,863	41.0	356.9	124,677	29.5	2,579	90.1
2001	6,788	2,857	42.1	347.9	121,770	28.7	2,537	88.8
2002	7,075	3,075	43.5	361.7	117,616	29.9	2,697	87.7
2003	7,463	3,255	43.6	392.3	120,521	32.4	2,884	88.6
2004	7,888	3,561	45.1	408.1	114,613	33.7	3,182	89.4
2005	8,406	3,805	45.3	443.3	116,496	36.6	3,383	88.9
2006	8,615	3,957	45.9	441.0	111,457	36.4	3,523	89.0
2007	8,778	4,097	46.7	453.1	110,593	37.4	3,632	88.7
2008	9,171	4,097	44.7	465.5	113,608	38.5	3,622	88.4
2009	9,499	4,145	43.6	438.0	105,668	36.2	3,643	87.9
2010	10,016	4,686	46.8	486.0	103,722	40.2	4,075	87.0
2011	10,255	4,819	47.0	486.3	100,904	40.2	4,207	87.3
2012	10,879	5,275	48.5	508.3	96,357	42.1	4,601	87.2
2013	11,372	5,476	48.2	506.4	92,473	42.0	4,697	85.8
2014	11,818	5,707	48.3	527.2	92,382	43.7	4,957	86.9
2015	12,262	5,918	48.3	518.4	87,601	43.0	5,071	85.7
2016	12,596	5,936	47.1	501.0	84,397	41.6	5,078	85.5
2017	13,771	6,334	46.0	503.0	79,409	41.8	5,414	85.5
2018	15,286	6,838	44.7	523.7	76,587	43.6	5,844	85.5
2019	16,395	7,277	44.4	520.3	71,499	43.4	6,147	84.5
2020	17,548	8,048	45.9	525.7	65,322	44.1	6,743	83.8
2021	19,610	8,790	44.8	526.5	59,898	44.5	7,221	82.2
2022	20,834	9,742	46.8	545.4	55,979	46.4	7,945	81.6
2023	21,969	10,849	49.4	521.3	48,050	45.2	8,519	78.5
2024	22,639	11,850	52.3	403.2	34,027	37.6	7,596	64.1
TOTAL	365,472	163,447	44.7	14,164.0	86,658	1,181.6	137,382	84.1

RESIDENT UNDERGRADUATE DEGREES: 2024

Academic Year of Graduation	Number Earning a Degree	Number Employed in Arizona	Percent Employed in Arizona	Aggregate Wages in Millions	Average Wage	State & Local Government Tax Payments in Millions	Number Employed During All Four Quarters	Percent Employed in All Four Quarters
1990	4,107	1,260	30.7%	\$150.2	\$119,188	\$12.4	1,068	84.8%
1991	4,275	1,501	35.1	194.9	129,849	16.1	1,300	86.6
1992	4,335	1,586	36.6	187.2	118,063	15.5	1,368	86.3
1993	4,487	1,645	36.7	196.2	119,291	16.2	1,437	87.4
1994	4,526	1,769	39.1	214.3	121,144	17.7	1,557	88.0
1995	4,721	2,000	42.4	241.6	120,815	20.0	1,729	86.5
1996	4,824	2,050	42.5	240.5	117,295	19.9	1,782	86.9
1997	4,947	2,185	44.2	265.2	121,390	21.9	1,920	87.9
1998	5,120	2,407	47.0	292.1	121,348	24.1	2,125	88.3
1999	5,104	2,319	45.4	266.7	115,006	22.0	2,048	88.3
2000	5,365	2,592	48.3	318.7	122,956	26.3	2,340	90.3
2001	5,252	2,619	49.9	314.4	120,057	26.0	2,329	88.9
2002	5,645	2,848	50.5	328.6	115,379	27.2	2,497	87.7
2003	5,954	2,993	50.3	356.3	119,042	29.4	2,652	88.6
2004	6,325	3,309	52.3	374.0	113,014	30.9	2,964	89.6
2005	6,691	3,548	53.0	408.1	115,027	33.7	3,158	89.0
2006	6,934	3,695	53.3	407.8	110,379	33.7	3,302	89.4
2007	7,046	3,820	54.2	413.1	108,153	34.1	3,395	88.9
2008	7,290	3,840	52.7	434.9	113,258	36.0	3,399	88.5
2009	7,463	3,864	51.8	403.5	104,427	33.4	3,407	88.2
2010	7,990	4,392	55.0	449.6	102,369	37.2	3,819	87.0
2011	8,183	4,509	55.1	451.8	100,194	37.4	3,953	87.7
2012	8,675	4,926	56.8	470.4	95,495	39.0	4,312	87.5
2013	8,962	5,105	57.0	470.2	92,111	39.0	4,389	86.0
2014	8,912	5,276	59.2	482.4	91,437	40.0	4,590	87.0
2015	9,006	5,394	59.9	468.7	86,894	38.9	4,641	86.0
2016	8,926	5,435	60.9	456.2	83,942	37.9	4,677	86.1
2017	8,802	5,709	64.9	447.9	78,448	37.2	4,895	85.7
2018	9,038	5,989	66.3	455.3	76,021	37.9	5,151	86.0
2019	9,365	6,248	66.7	442.4	70,815	37.0	5,311	85.0
2020	10,180	7,026	69.0	457.0	65,042	38.4	5,930	84.4
2021	10,782	7,655	71.0	458.4	59,887	38.7	6,375	83.3
2022	11,265	8,385	74.4	466.8	55,674	39.7	6,890	82.2
2023	11,728	9,153	78.0	443.4	48,440	38.4	7,331	80.1
2024	12,130	9,844	81.2	347.5	35,298	32.3	6,647	67.5
TOTAL	254,355	146,896	57.8	12,776.5	86,977	1,065.4	124,688	84.9

NONRESIDENT UNDERGRADUATE DEGREES: 2024

Academic Year of Graduation	Number Earning a Degree	Number Employed in Arizona	Percent Employed in Arizona	Aggregate Wages in Millions	Average Wage	State & Local Government Tax Payments in Millions	Number Employed During All Four Quarters	Percent Employed in All Four Quarters
1990	914	93	10.2%	\$10.6	\$114,090	\$0.9	79	84.9%
1991	994	114	11.5	16.8	146,934	1.4	96	84.2
1992	1,000	111	11.1	15.0	134,870	1.2	90	81.1
1993	1,149	148	12.9	19.6	132,483	1.6	117	79.1
1994	1,084	147	13.6	22.4	152,632	1.9	126	85.7
1995	1,001	127	12.7	19.6	154,708	1.6	112	88.2
1996	939	120	12.8	14.1	117,362	1.2	103	85.8
1997	1,123	177	15.8	27.9	157,600	2.3	155	87.6
1998	1,441	204	14.2	26.8	131,300	2.2	177	86.8
1999	1,468	227	15.5	31.8	139,904	2.6	196	86.3
2000	1,615	271	16.8	38.2	141,130	3.1	239	88.2
2001	1,536	238	15.5	33.5	140,617	2.8	208	87.4
2002	1,430	227	15.9	33.1	145,680	2.7	200	88.1
2003	1,509	262	17.4	36.0	137,422	3.0	232	88.5
2004	1,563	252	16.1	34.2	135,604	2.8	218	86.5
2005	1,715	257	15.0	35.2	136,773	2.9	225	87.5
2006	1,681	262	15.6	33.2	126,669	2.7	221	84.4
2007	1,732	277	16.0	40.0	144,248	3.3	237	85.6
2008	1,881	257	13.7	30.5	118,840	2.5	223	86.8
2009	2,036	281	13.8	34.5	122,736	2.8	236	84.0
2010	2,026	294	14.5	36.4	123,934	3.0	256	87.1
2011	2,072	310	15.0	34.5	111,231	2.9	254	81.9
2012	2,204	349	15.8	37.9	108,524	3.1	289	82.8
2013	2,410	371	15.4	36.2	97,449	3.0	308	83.0
2014	2,906	431	14.8	44.8	103,950	3.7	367	85.2
2015	3,256	524	16.1	49.7	94,877	4.1	430	82.1
2016	3,670	501	13.7	44.8	89,333	3.7	401	80.0
2017	4,969	625	12.6	55.1	88,191	4.6	519	83.0
2018	6,248	849	13.6	68.4	80,584	5.7	693	81.6
2019	7,030	1,029	14.6	77.9	75,656	6.5	836	81.2
2020	7,368	1,022	13.9	68.7	67,249	5.7	813	79.5
2021	8,828	1,135	12.9	68.1	59,973	5.7	846	74.5
2022	9,569	1,357	14.2	78.5	57,866	6.6	1,055	77.7
2023	10,241	1,696	16.6	77.9	45,945	6.8	1,188	70.0
2024	10,509	2,006	19.1	55.7	27,791	5.4	949	47.3
TOTAL	111,117	16,551	14.9	1,387.4	83,827	116.2	12,694	76.7

ALL GRADUATE DEGREES: 2024

Academic Year of Graduation	Number Earning a Degree	Number Employed in Arizona	Percent Employed in Arizona	Aggregate Wages in Millions	Average Wage	State & Local Government Tax Payments in Millions	Number Employed During All Four Quarters	Percent Employed in All Four Quarters
1990	1,726	261	15.1%	\$35.8	\$137,330	\$3.0	205	78.5%
1991	1,858	318	17.1	41.9	131,836	3.5	254	79.9
1992	1,757	320	18.2	43.6	136,210	3.6	255	79.7
1993	2,007	420	20.9	48.2	114,714	4.0	337	80.2
1994	2,138	435	20.3	54.5	125,233	4.5	358	82.3
1995	2,359	516	21.9	82.8	160,377	6.8	434	84.1
1996	2,262	595	26.3	90.9	152,693	7.5	491	82.5
1997	2,465	657	26.7	93.8	142,787	7.8	572	87.1
1998	2,536	695	27.4	102.0	146,811	8.4	587	84.5
1999	2,628	759	28.9	129.6	170,722	10.7	634	83.5
2000	2,625	796	30.3	126.0	158,353	10.4	689	86.6
2001	2,551	755	29.6	119.8	158,686	9.9	655	86.8
2002	2,776	898	32.3	131.8	146,778	10.9	774	86.2
2003	2,967	1,003	33.8	144.4	143,959	11.9	872	86.9
2004	3,120	1,060	34.0	153.8	145,053	12.7	929	87.6
2005	2,851	1,008	35.4	161.1	159,847	13.3	897	89.0
2006	2,973	1,019	34.3	150.3	147,505	12.4	914	89.7
2007	3,178	1,124	35.4	163.0	145,053	13.4	999	88.9
2008	3,440	1,298	37.7	189.9	146,336	15.6	1,168	90.0
2009	4,099	1,487	36.3	220.8	148,463	18.2	1,307	87.9
2010	4,241	1,643	38.7	214.8	130,760	17.7	1,467	89.3
2011	4,440	1,731	39.0	224.9	129,936	18.6	1,513	87.4
2012	4,453	1,699	38.2	218.9	128,832	18.0	1,510	88.9
2013	4,683	1,774	37.9	218.2	123,004	18.0	1,571	88.6
2014	5,044	1,802	35.7	221.8	123,081	18.3	1,592	88.3
2015	5,807	1,956	33.7	230.2	117,712	19.0	1,726	88.2
2016	6,360	1,992	31.3	224.2	112,544	18.5	1,772	89.0
2017	6,551	2,131	32.5	222.2	104,292	18.3	1,850	86.8
2018	7,458	2,315	31.0	239.4	103,411	19.8	2,020	87.3
2019	7,843	2,445	31.2	239.8	98,063	19.8	2,120	86.7
2020	8,830	2,700	30.6	259.4	96,078	21.5	2,338	86.6
2021	9,686	3,016	31.1	270.2	89,599	22.4	2,583	85.6
2022	10,621	3,334	31.4	274.9	82,460	22.8	2,833	85.0
2023	12,377	3,794	30.7	283.5	74,728	23.7	3,049	80.4
2024	13,510	4,431	32.8	228.5	51,560	19.8	2,620	59.1
TOTAL	164,220	52,187	31.8	5,855.1	112,194	484.5	43,895	84.1

RESIDENT GRADUATE DEGREES: 2024

Academic Year of Graduation	Number Earning a Degree	Number Employed in Arizona	Percent Employed in Arizona	Aggregate Wages in Millions	Average Wage	State & Local Government Tax Payments in Millions	Number Employed During All Four Quarters	Percent Employed in All Four Quarters
1990	1,112	220	19.8%	\$29.0	\$132,022	\$2.4	176	80.0%
1991	1,332	275	20.6	38.0	138,210	3.1	221	80.4
1992	1,246	288	23.1	39.8	138,026	3.3	228	79.2
1993	1,416	384	27.1	43.6	113,441	3.6	307	79.9
1994	1,546	404	26.1	50.0	123,867	4.2	333	82.4
1995	1,712	471	27.5	74.0	157,194	6.1	395	83.9
1996	1,622	532	32.8	80.1	150,486	6.6	439	82.5
1997	1,713	569	33.2	80.4	141,254	6.7	495	87.0
1998	1,770	605	34.2	87.3	144,271	7.2	511	84.5
1999	1,837	679	37.0	116.9	172,235	9.6	569	83.8
2000	1,772	674	38.0	108.3	160,683	8.9	586	86.9
2001	1,696	650	38.3	103.5	159,271	8.5	564	86.8
2002	1,967	800	40.7	118.9	148,651	9.8	687	85.9
2003	2,041	889	43.6	124.2	139,719	10.2	768	86.4
2004	2,001	895	44.7	125.6	140,390	10.4	784	87.6
2005	1,973	889	45.1	138.4	155,689	11.4	793	89.2
2006	1,885	881	46.7	125.4	142,376	10.3	786	89.2
2007	2,033	977	48.1	133.5	136,622	11.0	866	88.6
2008	2,309	1,148	49.7	163.6	142,480	13.5	1,033	90.0
2009	2,427	1,276	52.6	184.5	144,585	15.2	1,120	87.8
2010	2,662	1,416	53.2	178.7	126,220	14.7	1,267	89.5
2011	2,722	1,487	54.6	185.7	124,887	15.3	1,303	87.6
2012	2,586	1,426	55.1	171.0	119,931	14.1	1,271	89.1
2013	2,641	1,492	56.5	178.3	119,510	14.7	1,332	89.3
2014	2,604	1,505	57.8	179.3	119,131	14.8	1,327	88.2
2015	2,639	1,572	59.6	177.7	113,061	14.6	1,390	88.4
2016	2,693	1,610	59.8	176.3	109,525	14.5	1,442	89.6
2017	2,665	1,701	63.8	173.6	102,086	14.3	1,506	88.5
2018	2,805	1,805	64.3	184.4	102,151	15.2	1,588	88.0
2019	2,883	1,879	65.2	181.3	96,482	15.0	1,647	87.7
2020	2,924	1,995	68.2	190.2	95,342	15.7	1,764	88.4
2021	3,171	2,242	70.7	199.2	88,833	16.5	1,961	87.5
2022	3,382	2,499	73.9	206.4	82,592	17.1	2,179	87.2
2023	3,225	2,476	76.8	189.2	76,393	15.7	2,103	84.9
2024	3,321	2,667	80.3	167.6	62,827	14.2	2,002	75.1
TOTAL	78,333	41,278	52.7	4,704.0	113,959	388.8	35,743	86.6

NONRESIDENT GRADUATE DEGREES: 2024

Academic Year of Graduation	Number Earning a Degree	Number Employed in Arizona	Percent Employed in Arizona	Aggregate Wages in Millions	Average Wage	State & Local Government Tax Payments in Millions	Number Employed During All Four Quarters	Percent Employed in All Four Quarters
1990	614	41	6.7%	\$6.8	\$165,812	\$0.6	29	70.7%
1991	526	43	8.2	3.9	91,066	0.3	33	76.7
1992	511	32	6.3	3.8	119,872	0.3	27	84.4
1993	591	36	6.1	4.6	128,294	0.4	30	83.3
1994	592	31	5.2	4.4	143,035	0.4	25	80.6
1995	647	45	7.0	8.7	193,693	0.7	39	86.7
1996	640	63	9.8	10.8	171,336	0.9	52	82.5
1997	752	88	11.7	13.4	152,697	1.1	77	87.5
1998	766	90	11.7	14.7	163,881	1.2	76	84.4
1999	791	80	10.1	12.6	157,885	1.0	65	81.3
2000	853	122	14.3	17.7	145,481	1.5	103	84.4
2001	855	105	12.3	16.3	155,065	1.3	91	86.7
2002	809	98	12.1	12.9	131,490	1.1	87	88.8
2003	926	114	12.3	20.2	177,029	1.7	104	91.2
2004	1,119	165	14.7	28.1	170,344	2.3	145	87.9
2005	878	119	13.6	22.7	190,913	1.9	104	87.4
2006	1,088	138	12.7	24.9	180,253	2.0	128	92.8
2007	1,145	147	12.8	29.6	201,087	2.4	133	90.5
2008	1,131	150	13.3	26.4	175,846	2.2	135	90.0
2009	1,672	211	12.6	36.3	171,916	3.0	187	88.6
2010	1,579	227	14.4	36.1	159,081	3.0	200	88.1
2011	1,718	244	14.2	39.2	160,705	3.2	210	86.1
2012	1,867	273	14.6	47.9	175,327	3.9	239	87.5
2013	2,042	282	13.8	39.9	141,492	3.3	239	84.8
2014	2,440	297	12.2	42.5	143,096	3.5	265	89.2
2015	3,168	384	12.1	52.5	136,749	4.3	336	87.5
2016	3,667	382	10.4	47.9	125,269	3.9	330	86.4
2017	3,886	430	11.1	48.6	113,019	4.0	344	80.0
2018	4,653	510	11.0	55.0	107,869	4.5	432	84.7
2019	4,960	566	11.4	58.5	103,312	4.8	473	83.6
2020	5,906	705	11.9	69.2	98,160	5.7	574	81.4
2021	6,515	774	11.9	71.1	91,818	5.9	622	80.4
2022	7,239	835	11.5	68.5	82,062	5.7	654	78.3
2023	9,152	1,318	14.4	94.4	71,600	7.9	946	71.8
2024	10,189	1,764	17.3	60.9	34,525	5.6	618	35.0
TOTAL	85,887	10,909	12.7	1,151.0	105,513	95.7	8,152	74.7