

HIGHER EDUCATION AS A DRIVER OF ECONOMIC DEVELOPMENT IN VERMONT

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House Appropriations Committee

April 28, 2021 (revised slides 21 and 22)

- ▶ Attract out-of-state students to live and study here for some number of years
 - ▶ Spending on tuition, room, board, expenses
 - ▶ Some stay to become residents (taxpayers) of Vermont
- ▶ Keep young adult Vermonters with advanced training and education in-state by opening doors
- ▶ Accumulate more human capital and raise well-being and productivity
 - ▶ Spark innovation
 - ▶ Encourage entrepreneurship
- ▶ Help overcome likely decline in supply of high school graduates

HOW MIGHT HIGHER EDUCATION DRIVE ECONOMIC GROWTH IN VERMONT? AN OVERVIEW



PART I: ATTRACTING AND RETAINING OUT-OF-STATE STUDENTS TO HIGHER EDUCATION INSTITUTIONS IN VERMONT

How many students come from other states to attend higher ed institutions in Vermont?

How many of them stay to live and work here?

| Fall of 2019 | | Undergrad | Graduate | | | |
|--|--------|-----------|----------|--|--|--|
| Total headcount | 38,600 | 34,000 | 4,600 | | | |
| Out-of-state | 23,160 | | | | | |
| In-state | 15,440 | | | | | |
| No data from Goddard College, New England Culinary Institute, and Vermont Law School | | | | | | |
| Source: Vermont Higher Education Council | | | | | | |

HOW MANY OUT-OF-STATERS ATTEND VERMONT HIGHER ED INSTITUTIONS?

| Enrollment, Fall of 2019 | Out-of-state | In-state | Out-of-state | |
|--|--------------|----------|--------------|-------------|
| | | | If 10% stay | If 15% stay |
| Vermont State Colleges | 17% | 83% | | |
| | 1,872 | 9,142 | | |
| UVM | 69% | 31% | | |
| | 9,041 | 4,062 | | |
| Independent colleges | 83% | 17% | | |
| | 12,133 | 2,485 | | |
| Sum | 23,046 | 15,689 | 2,305 | 3,457 |
| Per year, if divide by 4 | 5,762 | 3,922 | 576 | 864 |
| No data from Goddard College, New England Culinary Institute, and Vermont Law School | | | | |
| Source: Vermont Higher Education Council | | | | |

HOW DOES THE OUT-OF-STATE PORTION VARY?

- ▶ Colleges and universities rarely track all graduates.
 - ▶ Some, like UVM, conduct surveys to find out where students are located after graduation, but only a small share responds.
- ▶ Some students stay for a short-term internship but then leave the state.
- ▶ Other students leave Vermont after graduation but return in the future to live and work in Vermont.

WE HAVE NO GOOD DATA ON THE SHARE
OF OUT-OF-STATE STUDENTS WHO STAY

WHY CHOOSE 10% AND 15% AS THE LIKELY SHARES OF OUT-OF-STATE STUDENTS WHO REMAIN IN VERMONT?

Middlebury reported about 30 members out of 552 graduates in the class of 2017 remained in state; that's about 5 percent.

At UVM, 66.5 percent of the 3,000 degrees awarded in 2017-18 went to non-Vermonters; the University does not know how many stayed in the state, but a survey with 439 out-of-state respondents with full-time jobs reported that 32 percent remained in Vermont.

Nearly 80 percent of all Vermont State Colleges graduates stay in the state, but about 83 percent of students are Vermonters.

- ▶ Births in Vermont, 2018
 - ▶ Vital Statistics, number of births to residents: 5,432
- ▶ Deaths in Vermont, 2018
 - ▶ Vital Statistics, number of residents who died: 6,027
- ▶ Natural increase was a negative 595
- ▶ If add 570 to 870 residents per year
 - ▶ At the midpoint, that's 720 new residents each year
- ▶ But how many in-state students leave Vermont to live and work?
 - ▶ Maybe replace in-state students who leave? True if 19% of in-state students leave Vermont to work

IS AN ADDITION
OF 570 TO 870
PEOPLE PER YEAR
SIGNIFICANT?



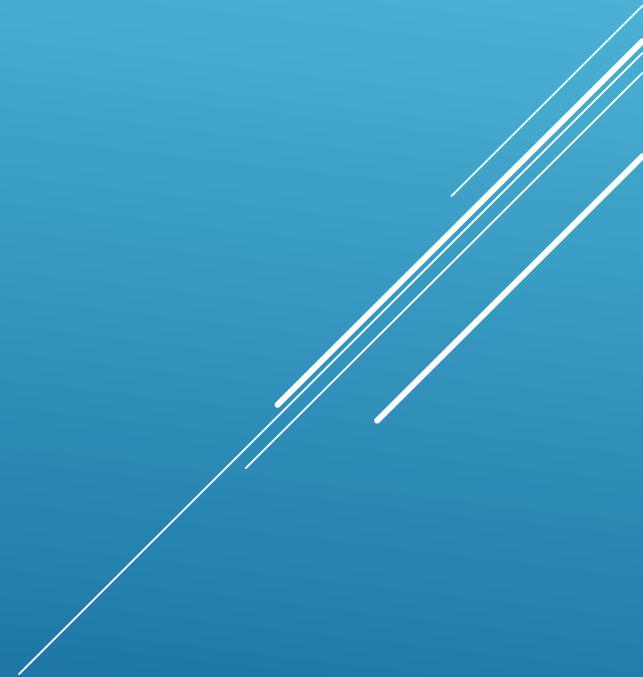
- ▶ We have no data specifically for spending by out-of-state students in Vermont
- ▶ In general, households headed by people under age 25 spend about **\$36,000** per year (Consumer Expenditure Survey)
 - ▶ If income of \$15K to \$30K, about **\$29,000**
- ▶ According to a June 2019 report from the Association of Governing Boards of Universities and Colleges
 - ▶ 1 million international students spend \$36.9 billion in the U.S. economy (about **\$37,000** per student household) and thereby support 450,000 jobs
 - ▶ Assuming a similar pattern of spending, 720 out-of-state students in Vermont spend about \$26 million and support about 320 jobs
 - ▶ In practice, some of that spending supports jobs outside Vermont

HOW MUCH DO OUT-OF-STATE STUDENTS SPEND IN VERMONT?

PART 2: HOW MANY VERMONTERS ATTEND HIGHER EDUCATION INSTITUTIONS IN VERMONT? HOW MANY STAY TO LIVE AND WORK HERE?

Many people see investing in human capital (skills, training, credentials, degrees) as leading to increased well-being both for the individual and for the state.

Higher education often enhances innovation, entrepreneurship, and preparing for the changing economy of the future.



| Enrollment, Fall of 2019 | | | |
|--|--------------|----------|-------------------------------------|
| | Out-of-state | In-state | In-state students |
| Vermont State Colleges | 17% | 83% | If 80% at public institutions stay |
| | 1,872 | 9,142 | 10,563 |
| UVM | 69% | 31% | |
| | 9,041 | 4,062 | If 50% at private institutions stay |
| Independent colleges | 83% | 17% | |
| | 12,133 | 2,485 | 1,243 |
| Sum | 23,046 | 15,689 | 11,806 |
| Per year, if divide by 4 | 5,762 | 3,922 | 2,952 |
| No data from Goddard College, New England Culinary Institute, and Vermont Law School | | | |
| Source: Vermont Higher Education Council | | | |

HOW MANY IN-STATE STUDENTS ATTEND VERMONT HIGHER ED INSTITUTIONS, AND HOW MANY STAY IN VERMONT?

- ▶ Robust internships with Vermont employers
- ▶ Attractive job offers
- ▶ Affordable housing
- ▶ Connections to family and friends
- ▶ Work/family balance
- ▶ Outdoor opportunities

WHAT FACTORS INFLUENCE THE
DECISION TO STAY IN VERMONT?

A decorative graphic consisting of several parallel white lines of varying lengths, slanted diagonally from the bottom right towards the top right, set against a blue gradient background.

PART 3: TO WHAT EXTENT IS HIGHER EDUCATION IN VERMONT AN ENGINE OF ECONOMIC DEVELOPMENT?

If Vermont invested more funds in higher education, what would be the result, and over what time period?

Questions to ask:

- 1) Where would additional funding go?
 - 2) Would it replace spending that would take place anyway?
 - 3) What types of students would benefit most?
 - 4) At what point in the business cycle is funding most effective?
- 

- ▶ A long history of research finds that output per worker is highly responsive to changes in schooling and earnings profiles in the long run.
 - ▶ Manuelli, Rodolfo E., and Ananth Seshadri. "Human Capital and the Wealth of Nations." *American Economic Review*, Sept 2014.
- ▶ Both the quantity and the quality of schooling matters in determining lifetime effects for both countries and individuals.
 - ▶ All “schooling” matters, from early childhood education to post-formal education such as on-the-job training
 - ▶ Individuals and families make choices about how much schooling and, to some extent, the quality of schooling
 - ▶ Those choices then feed into a person’s lifetime experience and also the experience of the local and larger economy

HUMAN CAPITAL FUELS THE WEALTH OF NATIONS (AND STATES)

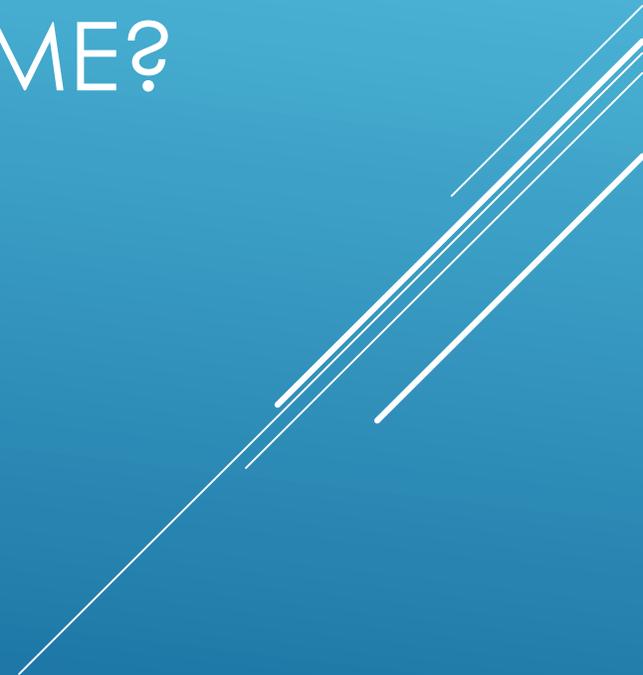
- ▶ One recent paper looks at the short-run effects of federal education expenditures on local income.
 - ▶ De Ridder, Hannon, and Pfajfar, “The Multiplier Effect of Education Expenditure,” Federal Reserve Board, Discussion Series Paper 2020-0058, May 2020.
- ▶ An increase in Pell grants by 1% of a city’s income raises local income by 2.4% over the next two years.
 - ▶ Pell grants help students with exceptional financial need; max \$6,495
 - ▶ Larger effect than military spending (1.5 on average).
 - ▶ Multipliers are higher during recessions than in expansions, adding to well-known benefits such as increasing the affordability of college and fostering long-run economic growth.

WHAT IS THE MULTIPLIER EFFECT OF
SUPPORTING STUDENTS TO ATTEND HIGHER
EDUCATION INSTITUTIONS?

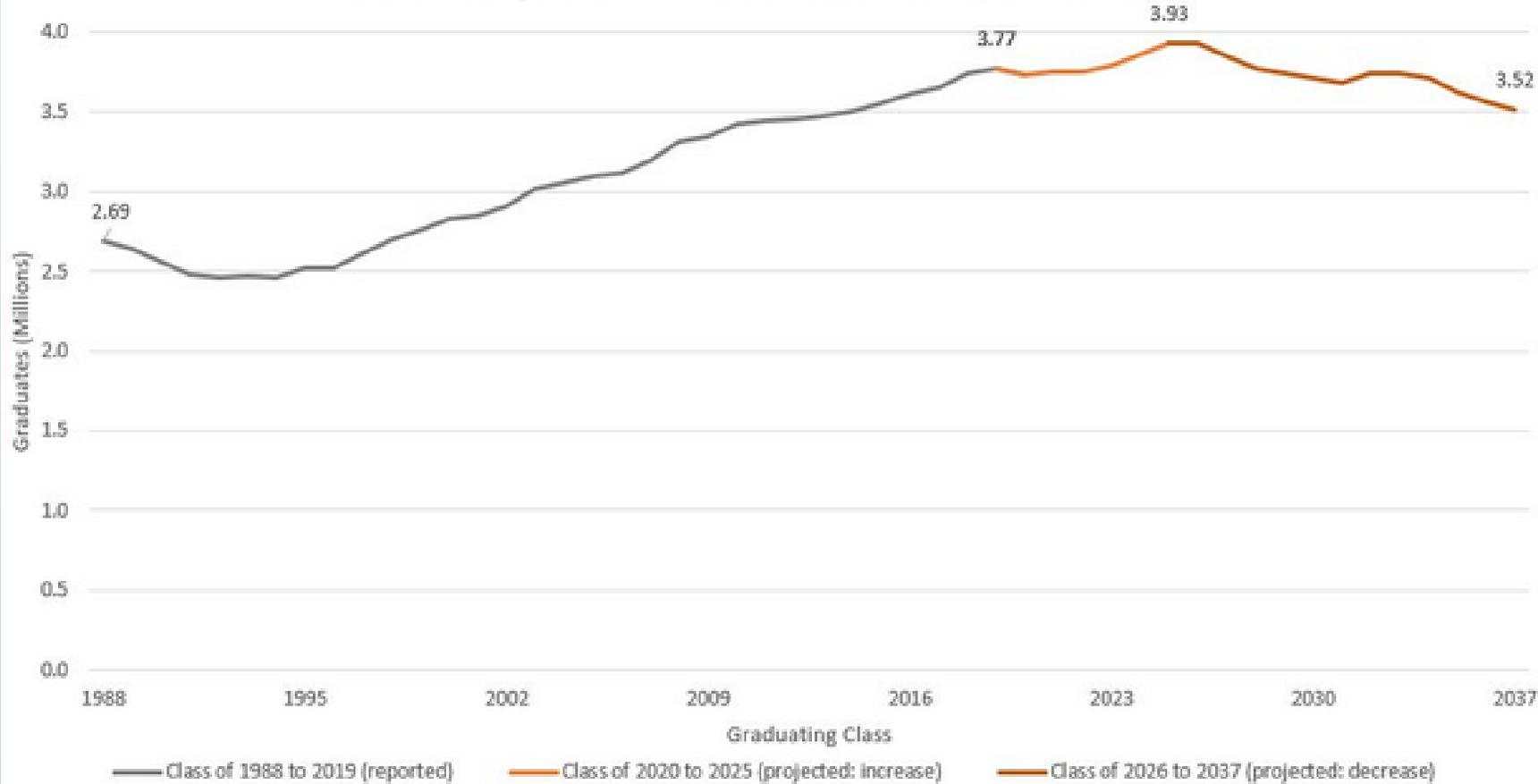
PART 4: DEMOGRAPHICS MATTER – WILL THE NUMBER OF STUDENTS AT HIGHER EDUCATION INSTITUTIONS RISE OVER TIME?

A peak in high school graduates across the country will occur in the next few years, but the story is different in Vermont.

However, the population that could benefit from higher education is larger than the population of new high school graduates.



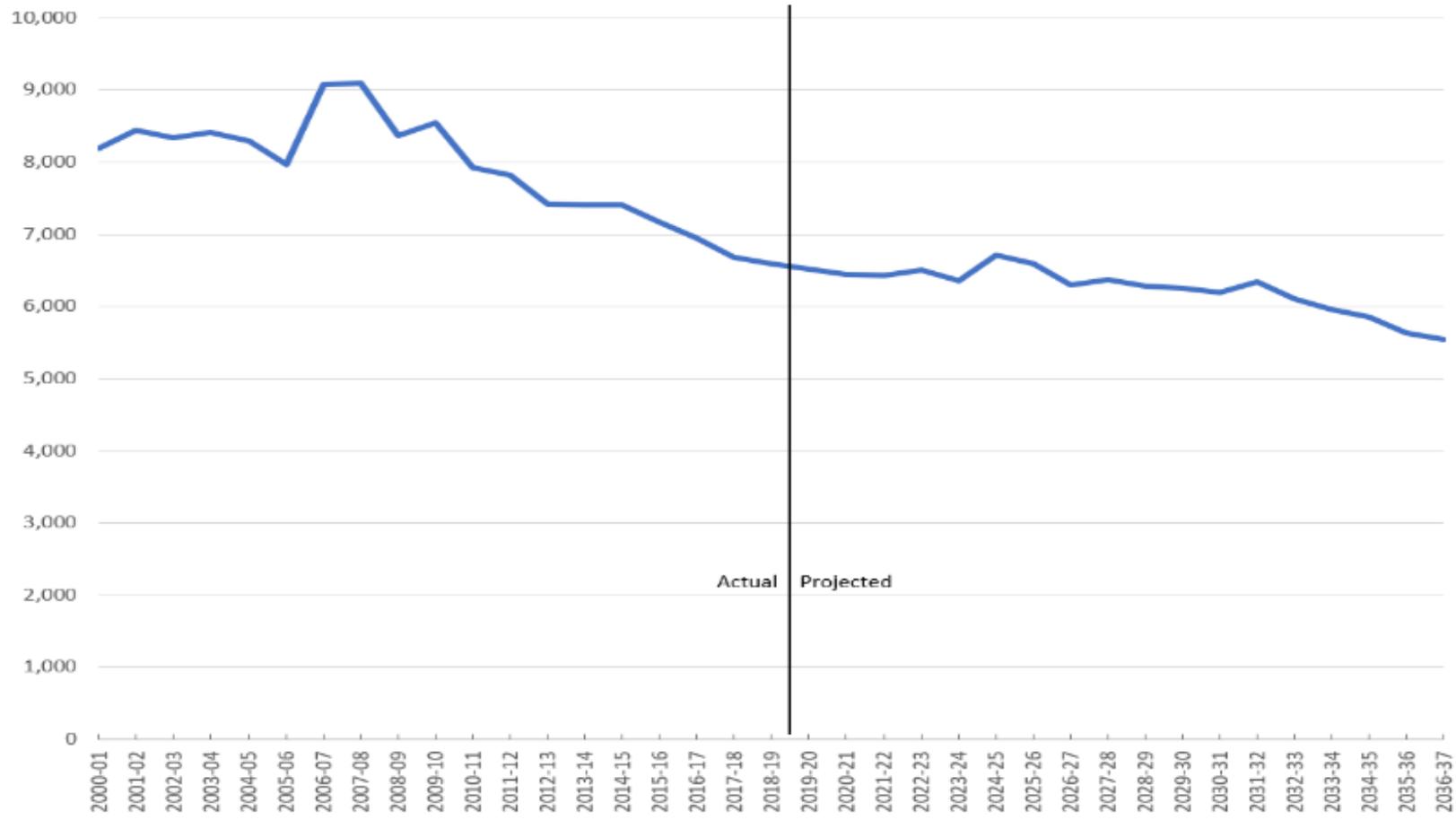
Total U.S. High School Graduate Growth Slows, then Declines



Source: Western Interstate Commission for Higher Education, *Knocking at the College Door*, 10th edition, 2020.

THE NUMBER OF HIGH SCHOOL GRADUATES IN THE U.S. WILL PEAK AROUND 2024 AND THEN DECLINE SLOWLY

Figure 6. Vermont Public and Private High School Graduates



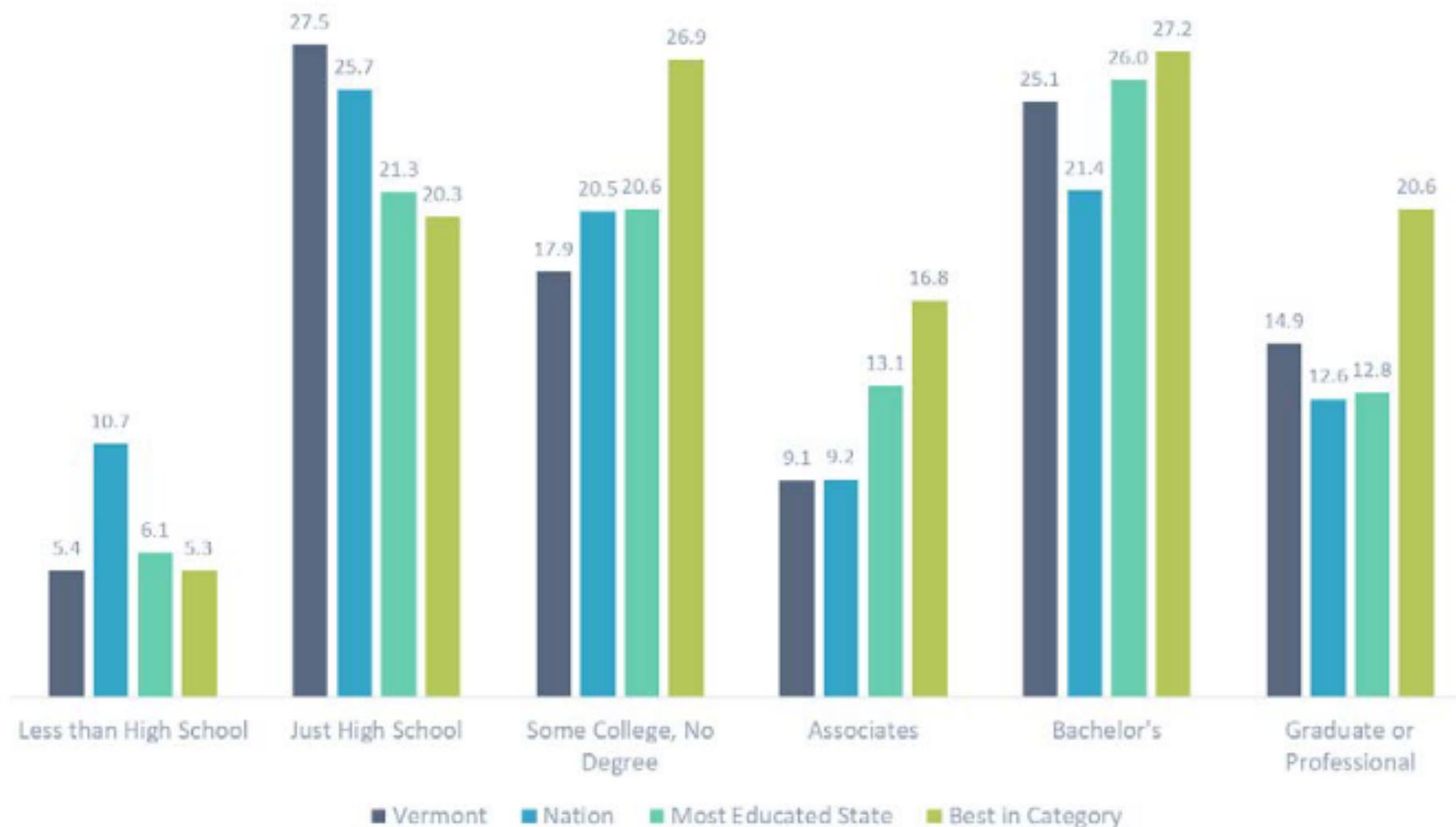
Source: WICHE.

IN VERMONT, THE SUPPLY OF HIGH SCHOOL GRADUATES GOING FORWARD IS GENERALLY ON A DOWNWARD TREND

- ▶ The state has a heavy concentration of residents with a bachelor's degree or above.
- ▶ The state also is a national leader in having low proportions of residents with less than a high school education.
- ▶ However, Vermont has a large number of residents whose education does not extend beyond high school.
- ▶ Vermont is especially low in the share of its population with sub-baccalaureate credentials – associate degrees and high-quality certificates.

VERMONT HAS A RELATIVELY WELL-EDUCATED
POPULATION WITH 51.5% OF RESIDENTS WITH A
HIGH-QUALITY CERTIFICATE OR HIGHER IN 2018

Figure 21. Educational Attainment of Working Aged Adults Aged 25 to 64 – Vermont, the US, and the Most Educated State (2018)



Source: U.S. Census Bureau, 2018 American Community Survey One-Year Estimates; Table B15001.

- ▶ About \$65 million in Higher Education Emergency Relief Fund is coming directly to Vermont institutions of higher education
 - ▶ HEERF will be available through 9/30/2023
- ▶ At least 50% of those funds to institutions must be used for emergency financial aid grants to students
- ▶ Some part is to be used to monitor and suppress COVID-19
- ▶ Some part is to be used to conduct direct outreach to financial aid applicants to explain adjustments if a family member was recently unemployed or if the student is independent and recently became unemployed

HOW WILL ARPA FUNDS SUPPORT
HIGHER EDUCATION IN OUR STATE?

- ▶ 37.5% on FTE enrollment of Pell Grant recipients who were not enrolled exclusively in distance education courses prior to the qualifying emergency
- ▶ 37.5% on headcount enrollment of Pell recipients who were not enrolled exclusively in distance education courses prior to the qualifying emergency
- ▶ 11.5% on FTE enrollment of non-Pell recipients who were not enrolled exclusively in distance education courses prior to the qualifying emergency
- ▶ 11.5% on headcount enrollment of non-Pell recipients who were not enrolled exclusively in distance education courses prior to the qualifying emergency
- ▶ 1% based on FTE enrollment of Pell recipients who were exclusively enrolled in distance education course prior to the qualifying emergency
- ▶ 1% based on headcount of Pell recipients who were exclusively enrolled in distance education courses prior to the qualifying emergency

A LARGE SHARE OF HEERF FINANCIAL
AID GOES TO PELL GRANT RECIPIENTS



QUESTIONS?

