

# Career Technical Education: System & Funding Overview

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# TOPICS

- Location and Funding overview
- CTE system outcomes
- CTE system opportunities
- Career Pathways Work at AOE

# Location & Funding Overview

- Center and program offerings
- Categorizing Investments
- Understanding Variables -
  - Terminology and definitions
  - Statutory references
- Practical Application –
  - Identify variables
  - Walk through of sample budget process
- Practical Example
  - Systems in Context

# Contexts - Education

- Vermont has a decreasing student population
- Half of the high schools have a graduating class of 60 or fewer
  - Half of those have a graduating class of less than 30
- Delivery of education is changing (PLPs, out of the building)
- Mergers & Consolidation
- Nearly \$80m Education Fund deficit

# Who May Participate?

- Generally, programs are intended for 11<sup>th</sup> and 12<sup>th</sup> grade students
  - Students apply
  - 600 mis/wk for part-time programs
- Introductory programs (pre-tech) programs, are intended for 9<sup>th</sup> and 10<sup>th</sup> graders
  - Broad introduction to career field connected to programs at CTE center
  - Shorter in length
  - Superintendents can say no

# Terminology Break

- Headcount – the UNduplicated number of students attending the CTE center
- Enrollment – the duplicated count of students in programs [students may be enrolled in more than one program]
- \*\*Full-time Equivalent (FTE) – the measure of how much time a student spends in a program. *Functions as a multiplier.*



# PROGRAMS – WHAT IS COUNTED?

- 16 VSA §§ 1531 & 1532 give the State Board of Education the authority to adopt minimum standards of operation and performance of the CTE centers and programs.
  - State Board of Education Rule 2380 addresses quality standards for CTE program approval
  - State Board of Education Rule 2382 creates a standard for instructional time and program length (175 day school year; avg. 120 minutes a day (PT)/avg. 240 minutes a day (FT))
  - State Board of Education Rule 2389 creates the standard for how many minutes a day, minimum, can be reported for state approved programs; and creates the FTE value (1 FTE = 240 minutes each day) *[by semester only]*

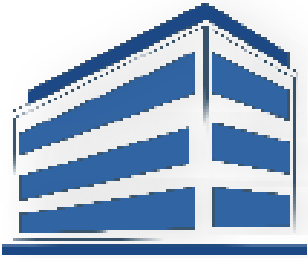
This student attends a CTE center that offers half-day programs. How much of an FTE are they?



Nurse

1 FTE = 240 minutes/day

This student attends a CTE center that offers FULL-day programs. How much of an FTE are they?



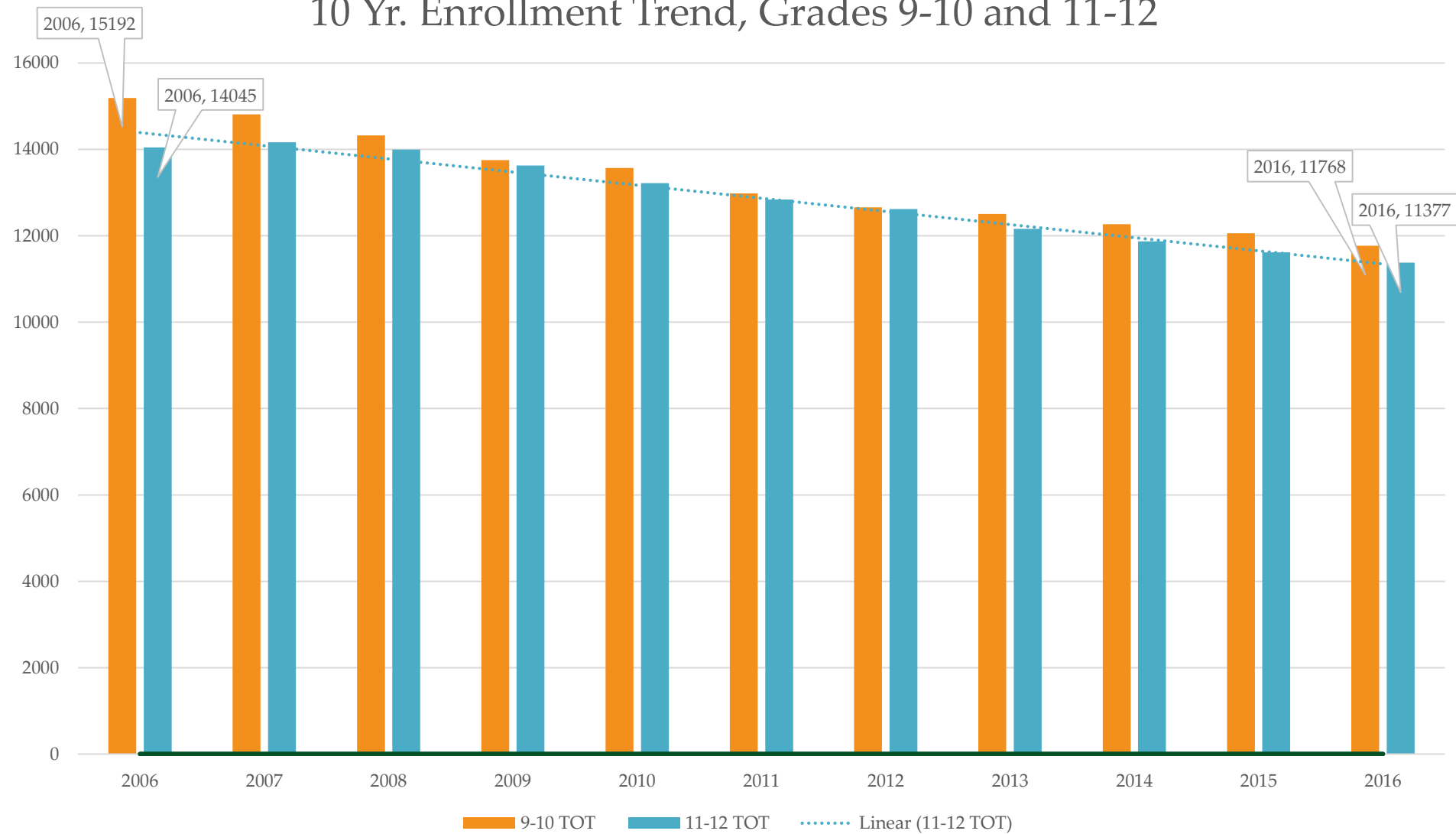
Mechanic

1 FTE = 240 minutes/day



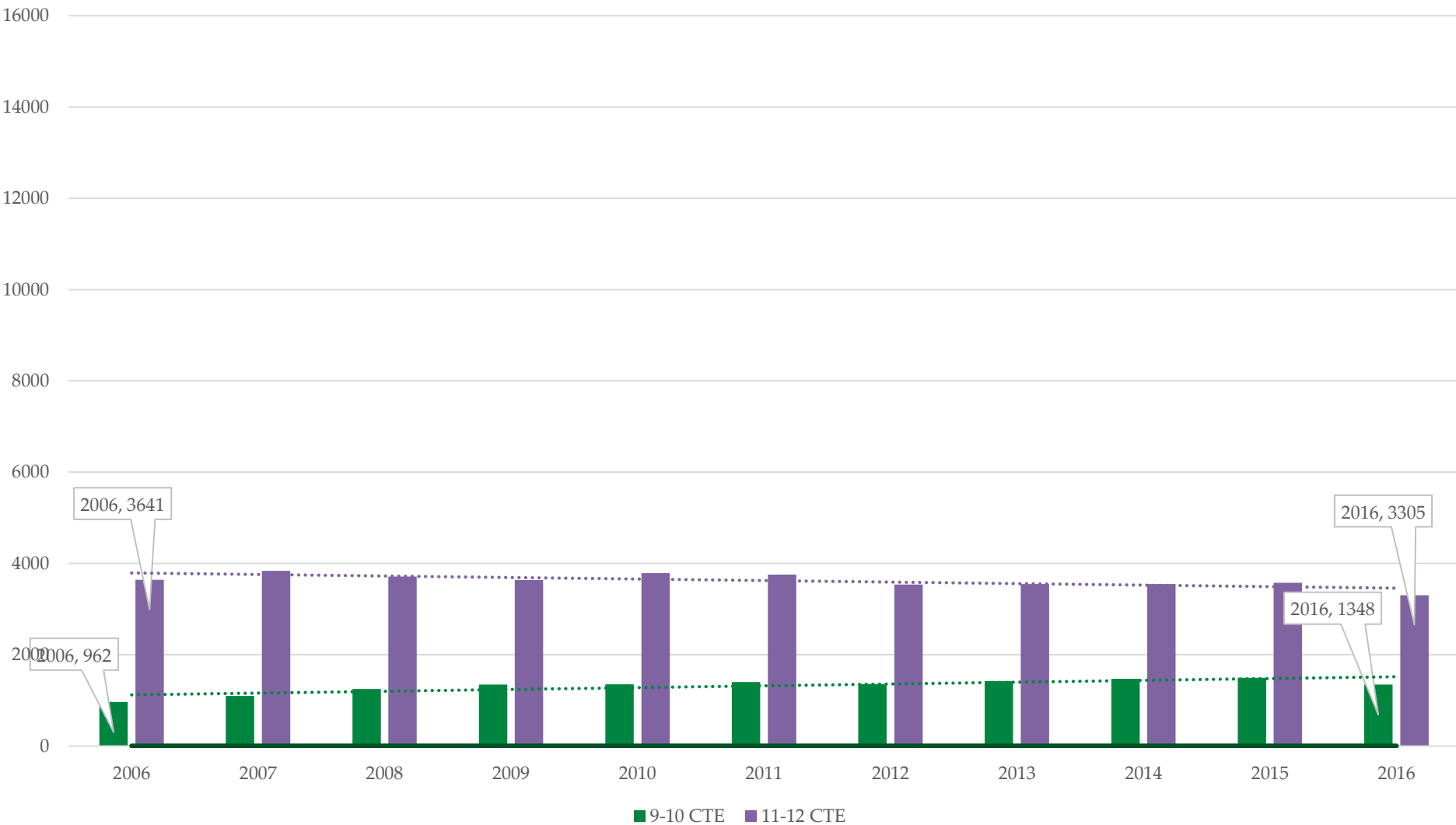
# State of Vermont

## 10 Yr. Enrollment Trend, Grades 9-10 and 11-12



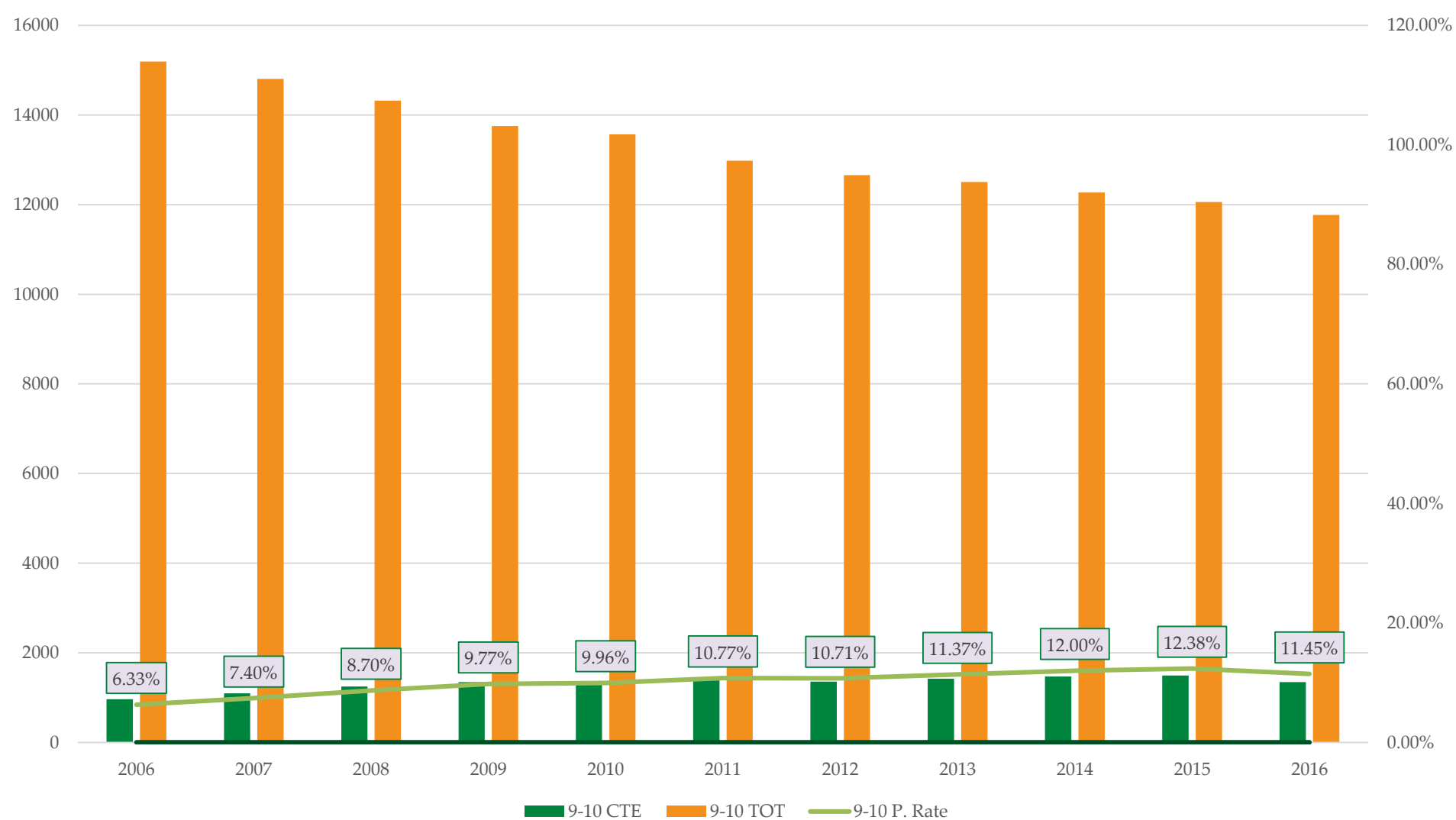
# State of Vermont

## 10 Yr. CTE Headcount, Grades 9-10 and 11-12



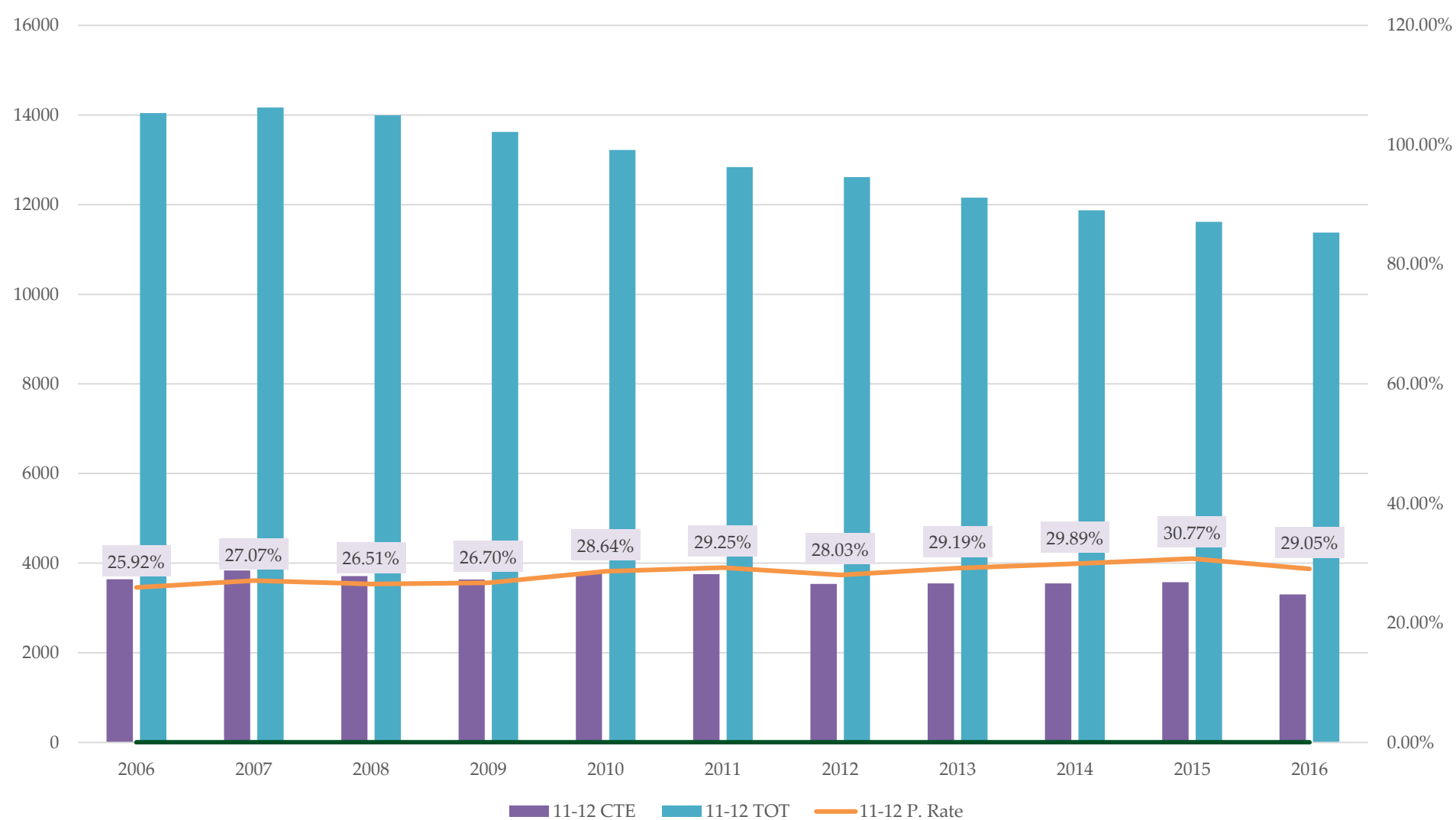
# State of Vermont

## 10 Yr. CTE Participation Rate, Grades 9-10

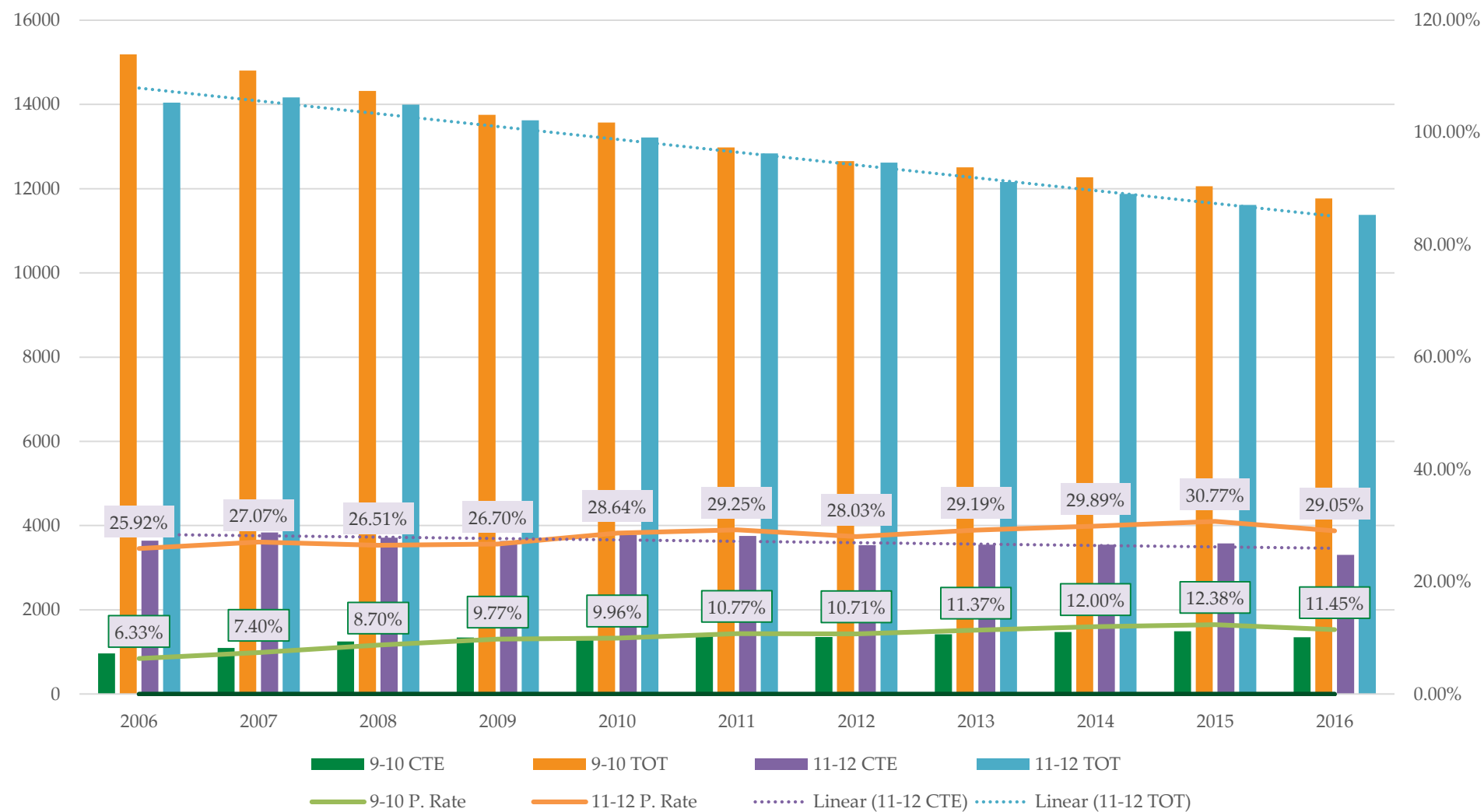


# State of Vermont

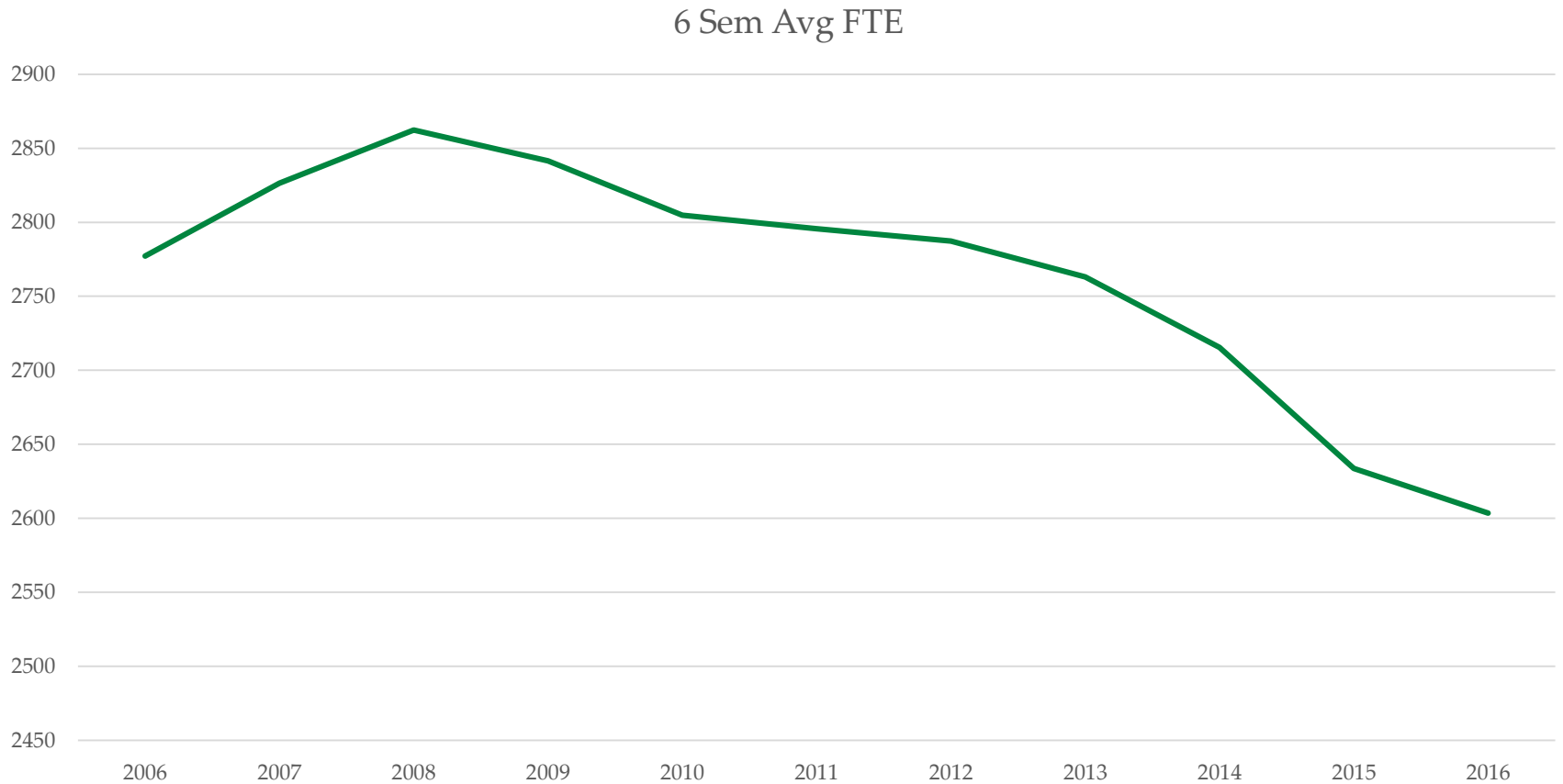
## 10 Yr. CTE Participation Rate, Grades 11-12



# 10 Yr. Enrollment & CTE Participation Trends, Grades 9-10 & 11-12



# FTE Change Over Time



# Understanding Our Investments

# Sources of Funds

- Grant Allocations by formula or flat amount
  - Federal – Perkins
  - State – Equipment Purchase/Replacement
  - State – Salary Assistance
  - State – Supplemental Assistance (Tuition Reduction)\*\*
  - State – Transportation Reimbursement
- Grant Allocations by competitive grant
  - Federal – Perkins Reserve
  - State – Program Innovation
  - State – Youth Leadership/CTSO leaders
- CTE Cost Sharing - CTE Tuition by formula



# CTE Tuition Funding

- “tuition” is a misnomer – it’s a Per FTE amount
  - The formula for **cost sharing** among multiple districts
- Dependent on multiple variables
  - Base Education Amount
  - FTEs
    - Out of state
    - In state
  - Budget
    - Federal grant income
    - Salary assistance and equipment grant income
    - Facility use income
    - Net amount to be raised by tuition (Net Costs)

# CTE Tuition - Sources of Information

- Provided by:
  - Vermont General Assembly:
    - Base Education Amount
  - CTE Director/School Board:
    - Estimate (out-of-state- FTE)
    - Budgeted Costs
  - Agency of Education
    - Rolling 6 semester average (in-state FTE)

FOR DEMONSTRATION ONLY

Enter anticipated # out of state FTEs	5.20
Enter in-state 6 semester avg FTEs	394.00
<i>TOTAL FTEs</i>	399.20
Enter Base Education Amount	\$ 9,588.00
<i>38% of Base Education Amount</i>	\$ 3,355.80
<i>67% of Base Education Amount</i>	\$ 6,341.56

COMMENTS
confirmed 9/13/17

STEP 1. Determine Net Costs.  
SBR - 2391(3)(A)

<b>Total Secondary Technical Education Budgeted Costs</b>	5,000,000
- Less Federal Grants	(58,000)
- Less Salary Assistance and equipment	(150,000)
- Less Local income from facility use charges	(2,000)
<b>Net Costs (amount to be raised by tuition)</b>	<b>\$ 4,790,000</b>

STEP 2. Calculate CTE Tuition.  
CTE Tuition (Out of State Tuition)  
16 V.S.A. §1522(10)

Net Costs	\$ 4,790,000
Actual Out-of-State FTEs + In-state 6 sem. FTE avg.	399.20

	\$ 11,999.00	Out-of-state
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STEP 3. Determine In-state Tuition  
In-state Tuition

16 V.S.A. §1552(c)	16 V.S.A. §1561(c)
Net Amount to be Raised by Tuition	35% of Base Education Amount Per FTE
In-state 6 sem. FTE avg.	

\$ 4,727,605.20	-	\$ 3,355.80	\$ 8,643.20	In-state
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STEP 4. Determining On-behalf Payment  
16 V.S.A. §1561(b)

Cash Payment of Vermont Tuition  
\* From the Education Fund  
\* This is a variable by sending school as in Step 5

87% of Base Ed. Amount X 6 sem. FTE avg.	=	Amount paid by State on behalf of district, from district funds
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<i>67% of Base Ed. Amount:</i>	6 sem. FTE Avg	\$ 3,286,574.64	aggregate on behalf - see column B below for disaggregation
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STEP 5. Determining Direct Payment Amount

Example 6 sem FTE avg	A	B
Sending School 1	103.60	\$ 864,185.62
Sending School 2	55.60	\$ 463,790.74
Sending School 3	25.40	\$ 211,875.62
Sending School 4	10.00	\$ 83,415.60
Sending School 5	18.20	\$ 151,816.39
Sending School 6	181.20	\$ 1,511,490.67
	394.00	\$ 3,286,574.64

Specific Direct Payment from High School to CTE				C	FYI
					35% tuition reduction
In-state Tuition	x	6 sem. FTE avg.	on behalf	\$ 31,249.90	\$ 347,660.88
In-state Tuition	x	6 sem. FTE avg.	on behalf	\$ 16,771.18	\$ 186,582.48
In-state Tuition	x	6 sem. FTE avg.	on behalf	\$ 7,661.66	\$ 85,237.32
In-state Tuition	x	6 sem. FTE avg.	on behalf	\$ 3,016.40	\$ 33,558.00
In-state Tuition	x	6 sem. FTE avg.	on behalf	\$ 5,489.85	\$ 61,075.66
In-state Tuition	x	6 sem. FTE avg.	on behalf	\$ 54,657.17	\$ 606,070.96
				\$ 118,846.16	\$ 1,322,185.20

Amount to be collected from tuition verification	
in state tuition	\$ 3,405,420.80 (f39+k39)
out of state tuition	+ \$ 62,394.80
<b>TOTAL TUITION TO BE COLLECTED</b>	<b>\$ 3,467,815.60</b>
Supplemental Assistance/Tuition Reduction	+ 1,322,185.20
	4,790,000.80

# OUTCOMES

# Industry Recognized Credentials

64.7% of all 2017 students earned at least one industry recognized credential (in SY 2016 or SY 2017).

70.8% of concentrators earned at least one IRC in the prior 2 years

# DUAL/CONCURRENT ENROLLMENT

Fund Category	Count	% of DE	% of CTE (11-12)
Act 77	30	3.7%	0.9%
Fast Forward	501	61.9%	14.5%
Local Funds	107	13.2%	3.1%
No Cost	27	3.3%	0.8%
Out of State program	40	4.9%	1.2%
Self Pay	104	12.8%	3.0%

# 6 MONTH Follow-Up

Placement	Count	
Still in high school	1895	
Not able to be reached	291	
Pursuing related postsecondary education or training	550	39.7%
Employed in a related field	352	25.4%
Employed in an unrelated field	278	20.1%
Pursuing unrelated postsecondary education or training	113	8.2%
Unemployed (seeking employment and not pursuing additional education)	40	2.9%
Military service in a related field	17	1.2%
Military service in an unrelated field	16	1.2%
Not in labor force (unemployed and not seeking employment or additional education)	18	1.3%

Survey of Spring 2017 concentrators

# 3 YR Follow-Up

Placement	Count	
Still in high school	47	
Not able to be reached	618	
Incarcerated	5	
Deceased	4	
Employed in a related field	753	32.6%
Employed in an unrelated field	706	30.5%
Pursuing related postsecondary education or training	491	21.2%
Pursuing unrelated postsecondary education or training	186	8.0%
Military service in an unrelated field	50	2.2%
Unemployed (seeking employment and not pursuing additional education)	50	2.2%
Military service in a related field	38	1.6%
Not in labor force (unemployed and not seeking employment or additional education)	38	1.6%

Fall 2017 Survey of Spring 2014 concentrators



# OPPORTUNITIES

- Middle grades
- Technical Assistance to School Administrators
- Technical Assistance to Special Educators
- Registered Apprenticeships
- Career Pathways
- Strategic Vision

# Career Pathways—How

- Two-levels of operation
  - Systems
    - Education
    - Workforce
    - Supports for specific populations
  - Programs
    - Easily understood sequencing
      - » Education coursework and/or training
      - » Credentials
      - » Alignment with employer expectations

# Career Pathways—Must

Have multiple entry and exit points

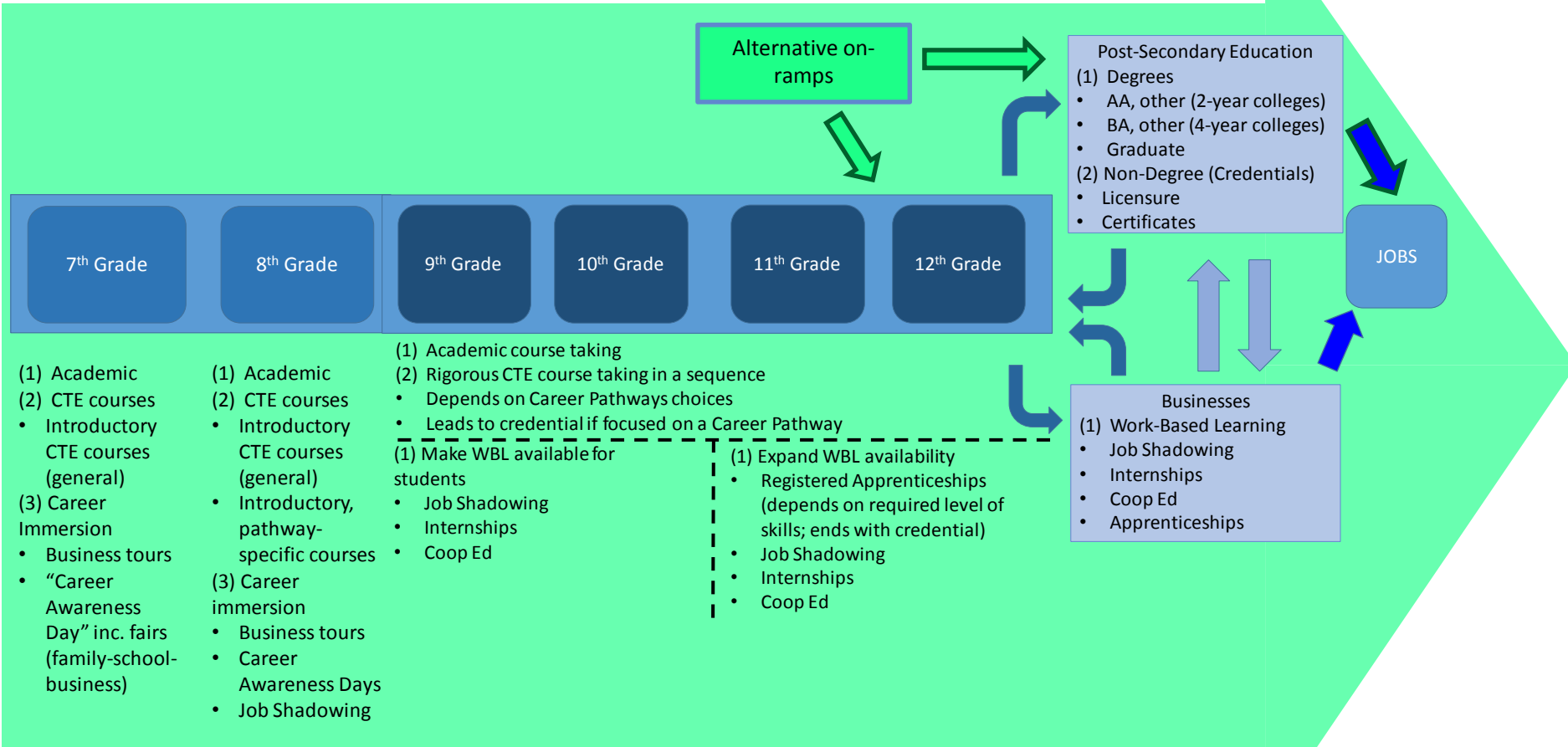
Transition seamlessly from secondary to postsecondary

Allow for college credit and industry certifications in high school

Strengthen strong work-based learning in partnership with business & industry

Have state-wide and regional workforce relevance

# VT Career Pathways—A Vision for Secondary Education



**ADVANCED MANUFACTURING**

Career Pathways Description

High School

**COURSES**

MIDDLE SCHOOL

- Exploratory
- ACADEMIC
- 4 English
- 3 Mathematics
- 3 Science
- 3 Social Studies
- Electives

PATHWAY COURSES

- Pre-Tech
- Manufacturing Processes
- Mechanical Projects and Material Behavior
- Engineering and Advanced Manufacturing

**COLLEGE CREDIT**

DUAL ENROLLMENT

- 2 courses
- State University of New York-Delhi
- NHTI-Concord

FAST FORWARD

- At least 1 course
- VT State Colleges

EARLY COLLEGE

- Senior year HS / Junior year College
- Tuition free college courses

**CERTIFICATIONS**

- National Institute for Metalworking Skills (NIMS)
- American Welding Society Structural Certification (AWS)
- Shielded Metal Arc Welding (SMAW) limited thickness
- Flux-Cored Arc Welding (FCAW)
- Heartsaver CPR
- OSHA 10

**WORK-BASED LEARNING**

- Job shadow
- Internship

Post-Secondary

**TRAINING**

- On-the-Job Training
- Apprenticeship

**2-YEAR COLLEGES**

CERTIFICATES

- Certified Production Technician Certificate

DEGREES

- Electrical Engineering Technology, Associate of Engineering (AE)
- Mechanical Engineering Technology, Associate of Engineering (AE)

**4-YEAR COLLEGES**

UNDERGRADUATE

- Manufacturing Engineering Technology (BS)
- Mechanical Engineering (BS)
- Electromechanical Engineering Technology (BS)

GRADUATE

- Mechanical Engineering (MS; PhD)

# QUESTIONS?

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