

Research indicates that student participation in high-quality work-based learning (WBL) programs and experiences may contribute to a wide range of positive outcomes. These outcomes include improved student academic achievement, discipline and attendance, secondary graduation rates, and college enrollment rates (Clayton et al., 2019; Linnehan, 2001; Warner et al., 2018). Research also indicates that to achieve such outcomes, it is critical for educators to focus on addressing historic inequity in career development and make a greater effort to provide work-based learning experiences, particularly to students with disabilities (Carter et al., 2009), youth with emotional and behavioral disorders (Lane & Carter, 2006), and low-income youth (Annie E. Casey Foundation, 2012).

This checklist summarizes the data that the Maryland State Department of Education and school systems *already* collect that could be leveraged to document the positive impacts of improved work-based learning programs.

Local and state education agencies collect such data in response to federal accountability requirements under the 2018 Strengthening Career and Technical Education for the 21st Century Act (Perkins V) and the 2015 Every Student Succeeds Act (ESSA). In addition, the Maryland State Department of Education (MSDE) has developed specific progress metrics in student achievement to ensure the quality of its career and technical education (CTE) programs. For example, through its *Career and Technical Education Four-Year State Plan* ("The Plan"), Maryland gathers data on the achievement, secondary graduation, college enrollment, and equity outcomes of the estimated 45 percent of secondary students who participate in CTE programs. Further, the MSDE administers work-based learning surveys to both employers and student participants and asks local school systems to compile data for the Program Quality Index (PQI) and the Local Program Accountability Report (LPAR) (MSDE, 2020).

More generally, under ESSA, all school systems collect data on student achievement. Additionally, in order to obtain state funding, education agencies already gather data on student attendance, and the federal government periodically conducts surveys of a small sample of education agencies for data on school safety and discipline (Diliberti et al., 2019; Gray & Lewis, 2015; Neiman, 2011).

This checklist summarizes these existing metrics and notes in *italics* some suggested modifications of these existing metrics that may be used as indicators of the impacts of work-based learning programs in Maryland based on findings from Maryland's review of career development research. It is important to emphasize that all metrics should focus on tracking the equity of access to work-based learning experiences by disaggregating data by demographic groups, disability status and type, free or reduced-price lunch status or Pell grant status, geographic location, and WBL experience type.





Indicators of positive student outcomes related to elementary WBL experiences

- □ % of elementary students meeting state academic proficiency standards in reading/language arts, mathematics, and science
- □ % of elementary students meeting attendance benchmarks
- □ % of elementary students meeting disciplinary benchmarks

Indicators of positive school/system outcomes related to elementary WBL programs

- □ % of elementary schools/school systems meeting benchmarks for ensuring students meet state academic proficiency standards in reading/language arts, mathematics, and science
- □ % of elementary schools/school systems meeting attendance benchmarks
- □ % of elementary schools/school systems meeting disciplinary benchmarks





Indicators of student participation in middle school WBL experiences

- □ % of middle school students meeting state academic proficiency standards in reading/language arts, mathematics, and science
- \square % of middle school students meeting attendance benchmarks
- \square % of middle school students meeting disciplinary benchmarks

Indicators of positive school/system outcomes related to middle school WBL programs

- % of middle schools/school systems meeting benchmarks for ensuring students meet state academic proficiency standards in reading/ language arts, mathematics, and science
- \square % of middle schools/school systems meeting attendance benchmarks
- \square % of middle schools/school systems meeting disciplinary benchmarks





Indicators of student participation in high school WBL experiences

Note: Consider expanding the existing metrics for CTE concentrators to include WBL participants, as noted in *italics* below.

- % of CTE concentrators and WBL participants meeting state academic proficiency standards in reading/language arts, mathematics, and science
- □ % of CTE concentrators and *WBL participants* who graduate high school (HS) in 4 years or extended year rate



- □ % of HS graduates attaining an industry credential¹ or completing an apprenticeship OR % of HS graduates earning a 3 or higher on an AP exam
- □ % of students, including students in special populations, who participate in at least 1 WBL experience.²
- □ % of CTE concentrators and *WBL participants* in CTE programs or programs of study that lead to non-traditional fields
- □ % of CTE concentrators and *WBL participants* who, in the second quarter after exiting from secondary education, are in postsecondary education or advanced training, military service or a service or volunteer program, or are employed
- □ % of CTE concentrators and *WBL participants* reporting satisfactory learning experience/ career readiness after WBL experience
- □ % of CTE concentrators and WBL participants who obtain satisfactory employer ratings

¹ Note: Maryland may want to consider modifying this item to focus on "employer-valued" industry credentials

² Note: In the Maryland WBL Progress Tracking Checklist, we have suggested increasing this metric to three WBL experiences.

Career Preparation continued

Indicators of positive school/system outcomes related to high school WBL programs

- □ % of schools/school systems meeting benchmarks for ensuring CTE and WBL participants meet state academic proficiency standards reading/language arts, mathematics, and science
- □ % of schools/school systems meeting benchmarks for ensuring CTE and *WBL participants* graduate HS prepared for postsecondary education and training and careers
- □ % of schools/school systems meeting benchmarks for student participation in at least 1 CTE or WBL experience
- □ % of schools/school systems meeting benchmarks for non-traditional field participation (e.g., % females in male-dominated fields, vice-versa, and demographic factors)
- □ % of schools/school systems meeting benchmarks for CTE and *WBL participants'* persistence into postsecondary education, training, service, or employment
- □ % of CTE concentrators and *WBL participants* who graduate HS with a recognized postsecondary credential OR accumulate postsecondary CTE credits OR pass an industry-relevant certification exam or obtain an occupational credential
- □ % of schools/school system meeting benchmarks for employer satisfaction



Indicators of student participation in postsecondary WBL experiences

Note: Consider expanding the existing metrics for CTE concentrators to include WBL participants, as noted in *italics* below.

- % of CTE concentrators and WBL participants retained in postsecondary education, advanced training, military service, or service/volunteer program by second quarter after HS graduation
- % of HS graduates without a 2-year college degree by age 25 who meet an earnings benchmark set by the Maryland Longitudinal Data System Center and the Governor's Workforce Development Board



- □ % of CTE concentrators and *WBL participants* in postsecondary CTE programs that lead to non-traditional fields
- □ % of college-level CTE concentrators and *WBL participants* who, one year after entering postsecondary education or advanced training, military service or a service or volunteer program, have applied for jobs in their field of interest
- □ % of CTE concentrators and *WBL participants* who receive a recognized postsecondary credential in or within 1 year³ after starting postsecondary program, advanced training, military service, or service/volunteer program

Indicators of positive school/system outcomes related to postsecondary WBL programs

- □ % of schools/school systems meeting benchmarks for CTE *and WBL participant* retention at the postsecondary program level
- □ % of schools/school systems meeting benchmarks for non-traditional field participation (e.g., % females in male-dominated fields, vice-versa, and demographics factors)
- □ % of schools/school systems meeting benchmarks for CTE and *WBL participant* credential attainment

³ Maryland may want to consider tracking the attainment of longer 2-year credentials instead of just 1-year credentials, which have lower long-term labor market value.

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