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# Early Signals, Future Pathways: Middle School Indicators of College and Career Success

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## Problem and Purpose

States are investing in college and career development activities in the middle grades, but the outcomes used to measure success, such as postsecondary completion, employment, and earnings, often appear years after students leave middle school. State and local education leaders therefore need earlier indicators to evaluate program efficacy and be able to identify and address students' needs, helping them build the foundation required to succeed in college and career pathways.

The **middle grades** are a critical period in this developmental process. Students begin forming educational expectations and career identities while making academic choices that can expand or restrict future opportunities. This report identifies the **middle school indicators and early high school outcomes** that states can use to guide investments, target support, monitor equitable access to pathways, and evaluate whether students are progressing toward longer-term success.

## Defining College and Career Readiness

- **College readiness** is the academic preparation, learning behaviors, and knowledge students need to succeed in postsecondary education.
- In the middle school, readiness is reflected in academic progress, course performance, attendance, engagement, and access to advanced courses.

- **Career readiness** reflects the knowledge and skills students develop across a continuum of career awareness, career exploration, and career preparation.
- In the middle school, readiness is reflected by career knowledge, aspirations, interests, self-efficacy, and adaptability.

## Readiness Across the Developmental Spectrum

| Middle School Indicators (G6-8) | Intermediate Outcomes (G9-10) | Long-term Outcomes (G11-) |
|---|---|---|
| Provide early signals of whether students are building the foundations for future success | Show whether middle school preparation is translating into high school momentum. | Ultimate goals of college and career pathway |
| • Academic Progress<br>• Behavior and School Engagement<br>• Motivation and identity<br>• Details presented below | • Core-course credits, and GPA<br>• Graduation on-track status<br>• Advanced course completion<br>• College-going and career aspirations | • High school graduation<br>• Postsecondary enrollment<br>• Certificate or degree completion<br>• Career identity, and purpose<br>• Employment in a chosen field<br>• Job retention, advancement, and earnings |

## Main Middle School Indicator Categories

| College Success Track | | Career Success Track |
|---|---|---|
| Academic achievement is the strongest early signals of college readiness, enrollment, and persistence (Dougherty et al., 2017; Hester et al., 2021; Johnson et al., 2022).<br><br>**Indicators:** ELA, math, and science achievement; course grades and completion; on-track status. | **Academic Progress** | Strong academic preparation helps students enter and progress through career-oriented courses and pathways (Adamuti-Trache et al., 2020; Lindsay et al., 2021).<br><br>**Indicators:** Career-connected academic skills; preparation for CTE; career-related course completion |
| Attendance, participation, homework completion, and school belonging indicate whether students are connected to learning. (Gaertner & McClarty, 2015; Hester et al., 2021, 2022).<br><br>**Indicators:** Attendance; classroom participation; homework completion; attention; belonging; use of academic supports. | **Behavior & Engagement** | Career-track engagement is reflected in sustained participation in career exploration, career-focused coursework, CTE sequences, and age-appropriate work-based learning (Orthner et al., 2013; Perry et al., 2018; Woolley et al., 2013).<br><br>**Indicators:** Career-exploration participation; participation in career-connected and work-based experiences. |
| Educational expectations, academic self-efficacy, and college aspirations help students see postsecondary education as attainable (Gaertner & McClarty, 2015; Glessner et al., 2017; Hill & Wang, 2015).<br><br>**Indicators:** Educational expectations; college knowledge; academic confidence; college-going identity; sense of purpose. | **Motivation & Identity** | Career interests, aspirations, self-efficacy, and identity help students explore options and make informed pathway decisions (Glessner et al., 2017; Perry et al., 2018; Wang & Wang, 2025).<br><br>**Indicators:** Career awareness; aspirations; exploration; planning; decision-making confidence; career identity and purpose. |

## Priorities for College and Career Pathways

States should strengthen college and career pathways through coordinated action across **academic progress**, **behavior and engagement**, and **motivation and identity**.

- For **college pathways**: expand access to rigorous coursework and monitor academic progress; strengthen attendance, participation, belonging, and academic supports; and build college knowledge, confidence, and college-going identity.
- For **career pathways**: expand career-connected coursework, CTE sequences, and work-based learning; sustain students' participation in career exploration and advising; and develop career awareness, aspirations, self-efficacy, and identity.

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