

InnovateED 2025 Data Presentation Overview

About the READY Institute:

The READY Institute's (READY standing for "Resilient Education for All, Designed for You") primary objective is to provide career-building opportunities for students and to enhance the county's efforts to proactively develop talent pipelines to support critical workforce and economic development needs. This is a bold initiative that will involve all three educational institutions working together on data-sharing, analysis and planning for life-long, student-focused pathway programs. The READY Institute is led by and headquartered at the Universities at Shady Grove, and works in collaborations with USG's academic partners, MCPS, MC, USM, MCEDC, and Worksource Montgomery.

Setting the stage:

Montgomery County's population is currently 1,082,273. **The population of the county is expected to grow** over the next five years.

The **number of jobs in the county is also expected to grow annually**. There are currently 533,488 jobs as of December 2024. This trend is expected to continue, with 538,000 jobs projected by 2035. The median income of the county is \$125,600.

In terms of education, in a recent look at 2023 graduates, 71.1% of MCPS graduates went to some form of higher education. Of those students who did attend higher education, 20% chose to attend MC. Additionally, the 2020 cohort at MC had a 27.5% graduation rate, and a 21.8% transfer rate. Montgomery County is one of the most educated counties in the country, with 33% of residents having a graduate level degree.

To see how job openings requiring at least a Bachelor's degree and degrees produced by the county align within four industry clusters in the county, we did an **updated gap analysis** look. As noted in our previous presentation, our gap analysis shows the different in annual job openings requiring at least a Bachelor's in Montgomery County and number of degrees received that can be associated with Montgomery County.

Engineering and Technology

- 2,828 average annual openings – 1,095 average degrees produced by USM = 1,733 average total gap

Business Enterprise

- 6,723 average annual openings – 796 average degrees produced by USM = 5,927 average total gap

Health and Life Sciences

- 2,949 average annual openings – 860 average degrees produced by USM = 2,089 average total gap

Public Service, Education, and Social Sciences

- 4,080 average annual openings – 1,070 average degrees produced by USM = 3,010 average total gap

Additionally, employer demand for specific skills is growing. The following are a list of specific skills for relevant industries within the county. We note which cluster above these industries correspond with.

Biotechnology (Health and Life Sciences)

- Necessary skills: Pharmaceuticals, manufacturing, chemistry, clinical trials
- Computer skills: SAP applications, Python, Microsoft Office

Position, Navigation, and Tracking (Engineering and Technology)

- Necessary skills: Electrical engineering, computer science, systems engineering, automation
- Computer skills: SAP Applications, Python, JIRA, MATLAB, Linux

Digital Infrastructure

- Necessary skills: Amazon Web Services, agile methodology, automation, data analysis
- Computer skills: Amazon Web Services, Python, SQL, Microsoft Azure, APIs

Montgomery County in General (All Clusters)

- Necessary skills: Project management, marketing, auditing, nursing, computer science
- Computer skills: Python, Amazon Web Services, SQL, Microsoft Office

To help meet the demand for these skills and the jobs openings described in the gap analysis, we believe a key solution is **Kindergarten to Job pathway development**.

Why pathway development?

- Pathways offer structured programs and frameworks that guide individuals from education into meaningful employment.
- **Pathways align educational experiences**—such as coursework, internships, apprenticeships, and certifications—with **industry skill and credential needs**

Pathways in Action

MoCo CAP



Montgomery County Public Schools (MCPS), Montgomery College (MC), the Universities at Shady Grove (USG), and Worksource Montgomery collaborated on development of a set of nine core skill career competencies.

These nine career competencies are adapted from best practices developed by the National Association of Colleges & Employers (NACE) and feedback from local employers.

These competencies act as common language of skill development across the institutions and allow learners to identify specific skills when engaging with employers.

Additionally, MCPS and Worksource Montgomery have aligned student strengths, interests, and workplace values with specific career paths. To help MCPS students see the benefits of skill development within those career paths, the MoCo CAP program held a Worlds of Work event, in which over 2,000 students had the opportunity engage in an immersive experience with over 180 exhibitors representing organizations from throughout the county. Exhibitors at this event identified connecting with students on skills to be a top benefit of participating in the event.

USG has embedded the nine competencies into all Student Services related programming. Below is a chart showing the number of students who engaged in an activity associated with each competency



Additional successful pathway programs:

ACES: Achieving Collegiate Excellence and Success (ACES) is a collaborative effort among Montgomery County Public Schools, Montgomery College, and the Universities at Shady Grove, designed to provide students with a seamless and supportive pathway to a bachelor's degree. ACES supported about 1,600 students at MCPS, 1,000 students at MCPS, and 120 students at USG as of Fall 2024. Students in the ACES program receive embedded supports at each level in terms of academic and career preparation. These supports have aided in the success of program completers. ACES students at

MCPS graduate at a 99% rate, as compared to 91.8% for the general population at MCPS. Additionally, 88% of ACES high school students plan to attend college post-graduation, as compared to the 71% of the general MCPS graduating student population who attend higher education. At MC, ACES students on average are meeting credit milestones at higher rates than their peers. MC ACES students are also retained from semester-to-semester at a higher rate than the general MC population. At USG, over half of USG students average a 3.5 GPA or higher.

We have learned from the ACES program that offering customized, high-quality services to students is a driver of their success. Providing guidance to students on skill development, financial matters, and career exploration leads to successful outcomes for students.

USG as a driver for success: USG's mission is "To support and expand pathways to affordable, high-quality public higher education that meet the distinctive needs of the region and are designed to support workforce and economic development in the state; to achieve these goals through partnerships and collaborations with academic, business, public sector and community organizations that promote student success, high academic achievement and professional advancement." Programs at USG embed current industry relevant skills into programs and work with their accrediting bodies to meet local industry needs. Additionally, USG welcomes partnerships with local industry to provide experiential learning experiences for students.

In a recent study of USG graduates done by Academic Analytics, we found that 83% of USG graduates still live within the region, with many earning a higher-than-average salary. Many students are working in in-demand fields within the county. Additionally, hundreds of USG program graduates currently work in support of the County, including in MCPS, for the county government, and for local non-profits.

In order to continue this work and in support of an ask from Governor Moore in 2024, we ask for the following next steps to support pathway development.

- 📣 **Policymakers** – Fund cross-sector partnerships and student supports
- 📣 **Educators** – Align curriculum with employer needs and expand access
- 📣 **Employers** – Offer internships, mentorship, and hiring pipelines
- 📣 **Community Leaders** – Advocate for equity in education and workforce pathways

Data Sources:

Census Bureau; Lightcast; Worksource Montgomery; MCPS; MC; USG; MHEC; MSDE; Bethesda Magazine; Academic Analytics; Governor Moore