EAB

Establishing Career Academies

District Leadership Forum

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1) Executive Overview

Key Observations

Administrators at profiled districts implemented Career Academies to prepare students for postsecondary pathways (e.g., local workforce), increase high school appeal, and/or increase student outcomes. The Career Academy model—which aligns high school curricula with career themes and creates a more personalized educational environment through small learning communities—prepares students for postsecondary pathways in college and careers.[1] Contacts at profiled districts report that they implemented Career Academies to increase high school appeal and improve student academic and behavioral outcomes. For example, contacts at District A report that students zoned for the district often choose to enroll in high schools outside of the district through the school choice option. To increase the appeal of District A's single high school and ultimately retain students in the district, administrators established Career Academies.

To select Career Academy themes, meet with local industry experts and analyze local and regional workforce data. For example, administrators at District C met with the Human Resources departments of local employers to learn about projected company growth and hiring needs in the next five to eight years. Administrators at multiple profiled districts also reviewed workforce data. For example, administrators at District D reviewed regional workforce data from a nonprofit that leads talent development programs—and administrators at District A reviewed real-time job market analyses (e.g., data on local employer demand for specific skills and industry credentials) from Burning Glass. Administrators at profiled institutions used insights from these sources to identify industries with high-demand jobs and subsequently align Career Academy themes with these industries.

Partner with local organizations and businesses to provide students with internship opportunities that develop their professional and industry-specific skills. At District C, students in the Health and Human Services Academy intern at local assisted-living facilities, hospitals, and neighborhood health clinics. In addition to gaining industry-specific knowledge and skills, students who participate in internships hone their professional skills, receive feedback on their resume and cover letter, and earn course credit. Administrators at District C and District F designate a school or district administrator to oversee internships for students. By assigning one administrator to manage the internship process, administrators streamline communications between the school and business partners.

Consider partnering with an external nonprofit to establish Career Academies. Administrators at District A, District B, District D, and District E partner with Ford Next Generation Learning (NGL). Contacts at these profiled districts cite planning and implementation support as the primary advantage to this partnership. Administrators at District F collaborate with the National Academy Foundation (NAF), which offers industry-relevant curricula and assists districts as they establish business partnerships. Both nonprofits help districts implement Career Academies that combine academically rigorous college preparatory curricula with career and technical education.

1) James J Kemple, *Career Academies: Long-Term Impacts on Work, Education, and Transitions to Adulthood* (MDRC, 2008), 1. https://www.mdrc.org/publication/career-academies-long-term-impacts-work-education-and-transitions-adulthood; "About Career Academies," National Career Academy Coalition, accessed November 15, 2019, https://www.ncacinc.com/nsop/academies.

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2) Definition and Purpose

Model Overview

Career Academies Increase Student Academic Achievement and Prepare Students for Postsecondary Pathways

The Career Academy model—which aligns high school curricula with career themes and creates a more personalized educational environment through small learning communities—prepares students for postsecondary pathways in college and careers.[2] High schools that follow this model implement one or more distinct Academies (i.e., schools within a school), each of which focuses on a different industry or career pathway. In addition to core courses, students in each Academy take industry-specific career and technical education (CTE) courses and participate in work-based learning experiences.[3]

A ten-year-long Career Academies evaluation study conducted by the MDRC, in collaboration with the U.S. Departments of Education and Labor and multiple private foundations and organizations, demonstrates the positive impact of the Career Academy model on student academic achievement (e.g., engagement, performance). Overall, Career Academies lead to a decrease in dropout rates, increase in attendance, and increase in credits earned by students in academic and vocational courses. In addition, the study found "strong and sustained positive impacts from participation in Career Academies on students' labor market experiences—notably, higher earnings."[4]

11%

Greater increase in average earnings per year for Academy students, compared to their non-Academy peers.[5]

2) James J Kemple, *Career Academies: Long-Term Impacts on Work, Education, and Transitions to Adulthood* (MDRC, 2008), 1. https://www.mdrc.org/publication/career-academies-long-term-impacts-work-education-and-transitions-adulthood; "About Career Academies," National Career Academy Coalition, accessed November 15, 2019, https://www.ncacinc.com/nsop/academies.
3) James J Kemple, *Career Academies: Long-Term Impacts on Work, Education, and Transitions to Adulthood* (MDRC, 2008), 1. https://www.mdrc.org/publication/career-academies-long-term-impacts-work-education-and-transitions-adulthood
4) Mary G Visher, JN Altuna, S Safran, *Making It Happen: How Career Academies Can Build College and Career Exploration Program* (MDRC, 2013), xi. https://www.mdrc.org/sites/default/files/ecco_final_report.pdf.
5) James J Kemple, *Career Academies: Long-Term Impacts on Work, Education, and Transitions to Adulthood* (MDRC, 2008), 1. https://www.mdrc.org/publication/career-academies-long-term-impacts-work-education-and-transitions-adulthood.

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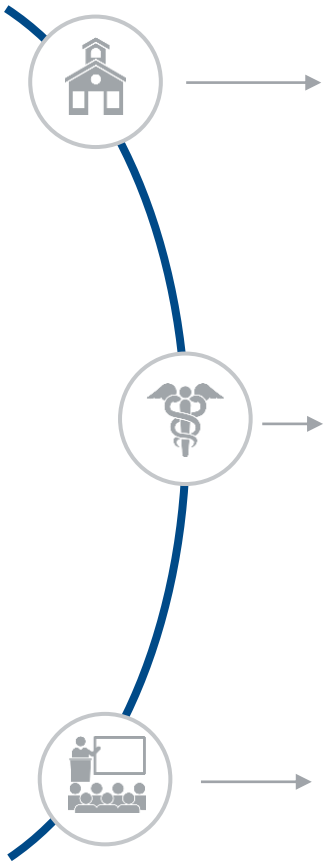
Core Characteristics of the Career Academy Model[6]



Structure

- Some districts structure Career Academies as schools within schools. For example, at District F, 15 to 20 percent of students are enrolled in an Academy.
- In contrast, other districts, including District B, District D, and District E establish "wall-to-wall" Academies (i.e., all students enroll in an Academy).

Career-Themed Curricula

- Administrators organize Career Academies by themes. Profiled districts most commonly selected Business, Human Services, and Engineering themes. Students take CTE courses aligned with Academy themes.
- Administrators often create pathways (i.e., sequences of more specialized courses) within a broader Academy theme. For example, administrators at District B established Agricultural Science, Architecture and Construction, Engineering, and Manufacturing pathways within the Science and Industry theme.
- Students engage in work-based learning opportunities aligned with Academy themes.

Small Learning Communities

- Students within each Academy form a small learning community, in which they take classes as a cohort and stay with the same team of teachers over time. This learning community structure helps to promote more meaningful relationships between students and teachers.[7]
- Learning communities incorporate intentionally aligned, theme-based curricula. Research literature describes learning communities as "curricular structures that link together several existing courses—or actually restructure the curricular material entirely—so that students have opportunities for deeper understanding and integration of the material they are learning."[8]

Today, approximately 8,000 high schools—including high schools at all profiled districts—operate Career Academies.[9]

6) James J Kemple, *Career Academies: Long-Term Impacts on Work, Education, and Transitions to Adulthood* (MDRC, 2008):1. https://www.mdrc.org/publication/career-academies-long-term-impacts-work-education-and-transitions-adulthood.
7) Karen Kellogg, "Learning Communities," *ERIC Digest*, (1999): 2. https://eric.ed.gov/?id=ED430512.
8) Ibid.
9) "Career Academies: Exploring College and Career Options (ECCO)," MDRC, accessed November 15, 2019, https://www.mdrc.org/project/career-academies-exploring-college-and-career-options-ecco#overview.

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Some nonprofit organizations, such as **Ford Next Generation Learning (NGL)** and the **National Academy Foundation (NAF)**, have developed specific Career Academy models. Review these models on **page 15.**

Overview of Career Academies at Profiled Districts

District	Career Academy Themes	Partnership with Nonprofit
District A	• Business, Engineering, and Industrial Technology • Health and Human Services	Ford Next Generation Learning (NGL)
District B	• Business and Technology • Human Services • Science and Industry	Ford NGL
District C	• Manufacturing • Business and Law • STEM • Future Educators • Health and Human Services • Hospitality	-
District D	• Health Sciences • Industry, Technology, and Innovation • Business and Hospitality • Human Services	Ford NGL
District E	• Arts and Communication • Business and Entrepreneurship • Engineering and Manufacturing • Health Science • Human Services • Science and Technology	Ford NGL
District F	• Digital Media • Business and Finance • Life Science • Engineering • Visual Arts	National Academy Foundation (NAF)

Motivations

Profiled Districts Established Career Academies to Increase Career Readiness, Improve High School Appeal, and Boost Student Outcomes

Though the primary goal of Career Academies is to prepare students for postsecondary pathways, administrators at profiled districts also sought to increase high school appeal and boost student academic and behavioral outcomes.

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Motivations for Establishing Career Academies at Profiled Districts

Increase Readiness for Postsecondary Pathways

- Administrators at District A and District C aimed to equip students with skills for success in high-demand jobs and/or college.
- Administrators at District D sought to promote a more focused high school course trajectory (e.g., elective courses tied to career pathways) and ultimately graduate students with skillsets aligned with industry needs.

Transform Learning and Boost Student Outcomes

- Administrators at District B sought to increase student engagement through the Career Academy model—which administrators expected would increase attendance and graduation rates.
- In response to district growth, administrators at District E expanded the physical capacity of the high school (i.e., built additional classroom space). To ensure that the larger enrollment of students did not negatively impact school climate and student outcomes, administrators created small learning communities within the larger high school through Career Academies.

Increase High School Appeal

- Contacts at District A report that students zoned for the district often chose to enroll in schools outside of the district through the school choice option. Administrators received a grant from the W.K. Kellogg Foundation to revitalize the school district and retain students. Administrators subsequently selected the Career Academy model to increase high school appeal and create an innovative learning experience for all students.

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3) Career Academy Design

Selecting Academy Themes

Seek Industry Expertise and Analyze Workforce Data to Identify Viable Academy Themes

To select Academy themes, administrators at profiled districts consulted industry experts and analyzed local and regional workforce data. Administrators then used insights from these meetings to select Academy themes that align with fast-growing industries and to design pathways (i.e., specific CTE course sequences) that incorporate skills highlighted by local employers.

Sources of Industry Expertise and Workforce Data at Profiled Districts

Source	Profiled Districts
Industry Experts	• Administrators at District C and District D met with representatives from the chamber of commerce and/or the Human Resources departments of local employers to gain insight into workforce trends and high-demand skills over the next five to eight years. • Administrators at District A met with representatives from local community colleges and workforce development programs.
Workforce Data	• Administrators at District A reviewed real-time job market analysis data (e.g., data on local employer demand for specific skills and industry credentials) from **Burning Glass** alongside county and state workforce reports. • Administrators at District C reviewed current workforce data and projected regional and national labor market trends from organizations such as the **Bureau of Labor Statistics**. For example, in the State of the Workforce Report from 2019, the National Association of State Workforce Agencies identifies industries with the highest annual job growth in each state.[10] • Administrators at District D reviewed workforce data (e.g., longitudinal wage data, forecasted jobs by industry sector) from a nonprofit that leads talent development programs as well as economic development data.

For more information on how to create a planning committee of local stakeholders to align Academy theme with community needs, review **pages 7-8** of the EAB report **Rural Magnet Programs at the Secondary Level**.

Using the above data sources, administrators at District C identified academy themes that aligned with high-demand jobs in the community, high-growth jobs in the region, and nation-wide labor shortages.

10) *State of the Workforce Report* (National Association of State Workforce Agencies, 2019, https://www.naswa.org/system/files/2019-09/naswastateoftheworkforce2019fullreport.pdf.

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Rationale for Selecting Academy Themes at District C

1	2	3
Consistent Job-Demand in the Community	**Forecasted Job Growth in Region**	**Current Local and National Shortage**
Health and Human Services Administrators selected the Health and Human Services theme to meet high demand for healthcare workers (e.g., phlebotomy technicians, certified nursing assistants) at two large, regional hospitals in the area.	**Manufacturing** In 2011, administrators learned through meetings with the chamber of commerce that a manufacturing company would soon build a plant in the region, so they implemented the Manufacturing Academy to prepare for the projected influx of manufacturing jobs.	**Future Educators** Contacts point to the local and national shortage of teachers.[11] By creating a Future Educators Academy, administrators address this shortage and build the district's teacher talent pipeline.
Hospitality Administrators selected the Hospitality theme to meet job demand for culinary work at the local sports arena, university, and restaurants.		**Business and Law** Contacts note a local and national shortage of police officers and deputy sheriffs.[12]

Industry Partnerships

Use Existing School Connections to Recruit Industry Partners

Administrators at profiled districts established partnerships with business partners from industries aligned with the Career Academy themes. Contacts at profiled districts cite several benefits of these business partnerships. For example, business partners at profiled districts offer industry expertise to help align Academy curricula with evolving industry needs and trends, provide internships opportunities for students, organize events to increase students' exposures to career pathways (e.g., career fairs), and/or assist with Academy funding through donations and help with grant applications.

At District C and District F, administrators, staff, and/or parents used their existing personal and professional networks to source leads for new business partnerships. For example, administrators at District F reached out to former graduates and asked them for introductions to business executives at their respective companies. Administrators at District C followed the below process to cultivate new business partnerships.

11) Tim Walker, "Teacher Shortage is 'Real and Growing, and Worse Than We Thought,'" *NEA Today*, April 3, 2019, http://neatoday.org/2019/04/03/how-bad-is-the-teacher-shortage/.
12) Martin Kaste, L Mack, "America's Growing Cop Shortage," *NPR*, December 12, 2018, https://www.npr.org/2018/12/12/675359781/americas-growing-cop-shortage.

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Process to Establish Business Partnerships at District C

Identify potential business partners.

- The local chamber of commerce identified high-potential local employers for district administrators.
- In addition, administrators, staff, and board members used their personal and professional networks to source prospective business partners in different industries (e.g., criminal justice, healthcare).

Pitch partnership vision to promising business partners.

- A district administrator reached out to promising leads via emails and in-person conversations with a pitch that centered on the goals of the Career Academy model and the district's vision for the business-district partnership (e.g., providing internships, better preparing graduates to work at the business).
- Contacts at District D recommend that administrators highlight the business partner's opportunity to identify gaps in curriculum and introduce new programming to equip students with skills to excel in high-growth industries. Administrators should clarify that through Career Academy partnerships, business partners help administrators build a stronger talent pipeline—which in turn *improves business partners' ability to hire strong talent*.

Research demonstrates that administrators at other districts use an approach similar to District C's strategy. In an article on partnerships between schools/districts and businesses, Education World reports that principals often write letters, make phone calls, and knock on doors to secure relationships with the local business community.[13]

Work-Based Learning Experiences

Designate an Administrator to Coordinate Work-Based Learning Opportunities for Students

Administrators at District C and District F designate a school administrator (e.g., internships coordinator) or district administrator (e.g., Academy director) to oversee the internship process for students. At District F, the Academy director works with a designated internship committee—of which the Chair is a business partner—to source business partner leads. By asking one administrator to manage the internships process, administrators streamline communications between the school and business partners.

At District C, contacts report that, of the approximately 330 Academy students, 23 percent—mostly juniors and seniors—participate in internships with business partners. Through internships, students gain meaningful, hands-on work experience, cultivate both technical skills and soft skills to help them secure future employment, and expand their professional networks.

13) "School-Business Partnerships That Work: Success Stories from Schools of All Sizes," Education World, accessed November 15, 2019, https://www.educationworld.com/a_admin/admin/admin323.shtml.

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Industry Partners Provide Internships to Academy Students at District C

Manufacturing
- Johnson & Johnson
- Caterpillar
- Power Partners USA

Health and Human Services
- Assisted-living facilities
- Hospitals
- Neighborhood health clinics
- School-based health clinic at a district middle school

Future Educators
- Local daycares
- Childcare center at the local university (i.e., aimed for children of faculty members)

Business and Law
- City courthouse
- City mayor's office
- Local law offices

To secure internship commitments from business partners, administrators at District F ask business partners to fill out a commitment form. In this form, partners acknowledge the time and resource demands associated with hosting interns.

Academy students at District C and District F who participate in internships typically start in their junior year. At District C, Academy students can intern seven to 10 hours per week. At District F, Academy students can intern 100 to 150 hours across two years. Students can also elect to pursue some summer internships.

Student Internship Process and Structure at District C[14]

Students interested in internships must complete an application and submit a resume. Eligible students demonstrate consistent attendance and punctuality in current classes and good academic standing (i.e., minimum 2.5 Grade Point Average (GPA)), as well as provide recommendations from two current teachers and one counselor.[15]

1. Twice a year (i.e., November for spring semester internships, February for yearlong internships), the internships coordinator reviews student applications for internships and selects top candidates for interviews.

2. Through interviews, the coordinator and partner employers together identify best-fit candidates. The coordinator works with employers to determine the number of interns they can take on, ideal schedule for the internship (i.e., times on specific days), and length (e.g., semester-long, year-long).

3. During the internship, students complete internship-related assignments and weekly reports reflecting on what they have learned. Students also work with their employers to develop their resumes and cover letters, and discuss professionalism in the workplace (e.g., effective communication).

14) "District C's Work-Based Learning Program," District C, accessed November 11, 2019.
15) Ibid.

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By establishing robust internships, administrators may increase students' employment prospects after graduating—and ultimately build employer hiring pipelines. For example, contacts at District C note that some partner employers find so much value in their student interns that they extend internships from one to two years. Some employers even hire student interns for part-time or full-time after those interns graduate from high school. Other partner employers offer to pay part of students' college tuition if students commit to work with the employer for two to three years after graduating from college.

General Career Education

Establish a Freshmen Academy to Allow First-Year Students to Explore Career Tracks Before Committing to an Academy

Administrators at District A, District B, District D, and District E—all of which partner with Ford NGL to implement and maintain Career Academies (see **page 15** for more information on Ford NGL-district partnerships)—operate a Freshmen Academy. The Freshmen Academy provides opportunities for students to explore different careers and build professional skills before committing to an Academy for the following three years of high school. By implementing a Freshmen Academy, administrators ensure that students explore multiple different career pathways and choose a best-fit Academy at the end of their first year of high school.

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Sample Student Activities to Build Career Awareness in Freshmen Academy at Profiled Districts

Experiential Field Trips

- Participate in college and university tours to learn about different academic programs of study
- Go on site visits at companies and organizations in industries reflected by Academies (e.g., healthcare)

Exposure to Industry Representatives

- Learn from industry representatives through talks and presentations held at the school
- Attend career fairs and career expos and learn about jobs within specific industries

Career-Focused Classroom Instruction

- Receive core content instruction tailored to students' career interests (e.g., real-world problems in their field of interest)
- Learn professional skills through a year-long elective seminar
- Explore **You Science** "brain games" that measure aptitude and match students with best-fit majors or careers

Integrate Professional Skills into Each Academy Year to Prepare Students for the Workplace

Administrators at District D integrate lessons on professional skills into each year of the Academy following the Freshmen Academy. By doing so, administrators ensure that all students gain skills that will help them excel in any professional workplace.

Strategies to Equip Students with Professional Skills at District D

Professionalism Workshops

- Seniors practice writing resumes and cover letters and hone their interview skills. Administrators match seniors with business partners for mock interviews.
- Contacts note that, in the 2018-2019 school year, administrators arranged 410 mock interviews over three days.

Course Integration

- Social Studies teachers deliver lessons on professional skills to sophomores and juniors. Sophomores focus on workplace professionalism (e.g., effective communication).
- Juniors take Government and Economics as one-semester courses. Teachers incorporate lessons on digital citizenship and professionalism in online spaces into the Government course. Teachers integrate personal finance lessons (e.g., credit cards, debt, loans) into the Economics course.

Administrators at District F also provide opportunities for all Academy students to hone professional skills and gain exposure to different career pathways through mock interviews and flipped mock interviews with business partners and guest speakers.

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4) Implementation

Nonprofit Implementation Support

Multiple Profiled Districts Partner with Nonprofits to Facilitate Career Academy Implementation

Almost all profiled districts partner with nonprofit organizations to facilitate implementation and ongoing success of the Career Academies. Administrators at District A, District B, District D, and District E partnered with Ford NGL to establish the Career Academy model. Administrators at District F collaborate with NAF to operate two of its five Academies. Both nonprofits help districts establish Career Academies that combine academically rigorous college preparatory curricula with career and technical education.

Partner Nonprofit Organizations at Profiled Districts[16]

Ford Next Generation Learning

- **Background:** Ford Motor Company and the Education Development Center created Ford NGL in 2000 to help districts scale and sustain systemic transformation of secondary schools through the Career Academy model.
- **Scale:** Ford NGL partners with over 35 districts across 15 states.
- **Student Outcomes:** Ford NGL states that Ford NGL districts experience an increase in graduation rates, an increase in attendance, a decrease in disciplinary actions, higher performances on standardized exams (e.g., AP, ACT) and state exams, and an increase in the percentage of students who fill out the Free Application for Federal Student Aid (FAFSA).

National Academy Foundation

- **Background:** Since 1980, NAF has partnered with high-need communities to implement NAF Academies to boost student outcomes.
- **Scale:** NAF has grown from one Academy of Finance in New York City to 617 NAF Academies across 35 states (in the 2018-2019 school year). NAF has also expanded the industries aligned with Career Academies, including hospitality and tourism, engineering, health sciences, and information technology.
- **Student Outcomes:** In 2018, NAF Academies reported a 99 percent graduation rate. In addition, 87 percent of NAF Academy seniors planned to enroll in college.

16) "Ford Next Generation Learning," Education Development Center, accessed November 15, 2019, https://www.edc.org/ford-next-generation-learning-ford-ngl; "About Us," National Academy Foundation, accessed November 15, 2019, https://naf.org/about.

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Some Profiled Districts Partner with Ford NGL for Career Academy Planning and Implementation Support

Administrators at District A, District B, District D, and District F partnered with Ford NGL to establish Career Academies. Contacts at District B state that when administrators first researched the Career Academy model, they were drawn to profiles of successful Ford NGL Career Academies. For example, Metro Nashville Public Schools in Nashville—the flagship district for Ford NGL's work—saw significant increases in academic, behavioral, and social outcomes after implementing Career Academies. During a visit to one of the district's high schools, former president Barack Obama even praised the Career Academies model in Metro Nashville Public Schools as "simple but powerful."[18] After multiple study visits to Metro Nashville Public Schools, administrators at District B determined that the Ford NGL Career Academy model could yield positive outcomes for their own students. (All profiled districts that partner with Ford NGL conducted study visits to Metro Nashville Public Schools.)

22%

Increase in graduation rate at Metro Nashville Public Schools over a nine-year span after administrators implemented the Career Academy model.[17]

Contacts at District A, District B, District D, and District F cite multiple benefits of partnering with Ford NGL throughout the process of planning and implementing Career Academies. Contacts at these profiled districts did not report disadvantages with partnering with Ford NGL.

17) Jane Hammond, "Hampton One of 26 Communities Undergoing Academy Transformation," *Daily Press*, August 14, 2017, https://www.dailypress.com/news/education/dp-nws-academies-of-hampton-comparison-20170814-story.html.
18) Ibid.

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Benefits of Ford NGL Partnerships at Profiled Districts

Stage	Value of Ford NGL Partnership
Engaging School and Community Stakeholders	**Demonstrating Evidence of Success** • Contacts at profiled Ford NGL districts cite study visits to successful Ford NGL districts as influential in understanding the Career Academy model and securing buy-in from community stakeholders. For example, at District E, 90 administrators, teachers, parents, and other community stakeholders visited Metro Nashville Public Schools during multiple site visits. **Gauging Community Readiness for Career Academies** • After conducting school site visits, Ford NGL staff write an initial report that analyzes district, staff, and community readiness for Career Academies and highlights opportunities for a Ford NGL-district partnership. The report includes information on the district's high school(s), the local economy (e.g., largest employers in the county), district strengths (e.g., leadership commitment) and district challenges (e.g., financial resources).[19]
Career Academy Planning	**Implementation Road Map and Resources** • Contacts at District A, District B, and District E found value in Ford NGL's implementation road map, practices, and resources that describe how to establish wall-to-wall Academies. • For example, Ford NGL helps districts host a community visioning meeting to present how the Career Academy model aligns with community interests and needs. **Strategic Plan Development** • Ford NGL assists districts with drawing up a strategic plan for Career Academies. Contacts at District E report that, without Ford NGL's guidance, transforming district structures and processes—such as the course registration process, course catalogue, master schedule, and teacher training—would have felt overwhelming. • Contacts at District B note that the district was able to expedite their implementation process specifically because of Ford NGL's expertise and guidance.
Ongoing Support	**Professional Development for Academy Staff** • Contacts at profiled Ford NGL districts cite the value of Ford NGL's professional development for administrators and teachers in the form of seminars, workshops, and networking opportunities with other Ford NGL districts. • Ford NGL provides recommendations to partner districts on how to structure and implement initial and ongoing professional development for teachers. **Periodic Implementation Progress Checks** • Ford NGL checks in every other week by phone to workshop implementation challenges. Ford NGL also provides annual site visits to gauge the district's fidelity to the Career Academy model. • Contacts at District A and District D cite the value of monthly Career Coach virtual meetings to help administrators brainstorm solutions to implementation challenges.

19) "Ford NGL Phase 1: Explore Visit: Key Findings and Recommendations Report" (Ford Next Generation Learning, 2018), 1-11, https://www.chamberrva.com/wp-content/uploads/2018/12/Ford-NGL-Phase-1-Chesterfield-report-12-11-18.pdf.

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District F Partners with NAF for Industry-Aligned Curricula Expertise

At District F, NAF sponsors two of the district's five Academies, Finance and Digital Media. Due to an existing, long-standing (i.e., over two decades) partnership between NAF and District F's Finance Academy, administrators decided to subsequently partner with NAF to launch the Digital Media Academy. Contacts note the following benefits of their partnership with NAF.

Benefits of NAF Partnership at *District F*[20]

Industry-Validated Curriculum

- NAF partners with industry professionals and organizations—such as PBL Works, Cambridge International Examinations, and Network for Teaching Entrepreneurship—to develop curricula that integrate current industry standards and workplace skills.
- NAF makes curricular resources and support available to partner districts online.

Work-Based Learning Opportunities

- NAF recommends that administrators provide a continuum of work-based learning experiences, from career awareness to career exploration to hands-on career preparation activities (e.g., internships).
- Contacts at District F note that administrators were able to secure more and stronger business partnerships due to the NAF affiliation (e.g., contacts note local businesspeople respect the NAF brand and vision).

NAFTrack Certification

- NAF, in collaboration with corporate partners—such as AT&T, Verizon, Cisco, HP, and JPMorgan Chase—launched the NAFTrack Certification to be a "rigorous and comprehensive assessment system [that] evaluates students on academic proficiency, project execution, and internship performance." Graduates with NAFTrack Certification are eligible for priority consideration at partner companies.

For example, job applicants with NAFTrack Certification receive resume support, post-interview feedback and coaching, priority hiring in equally qualified applicant pools, and potentially higher starting salaries.[21]

20) "Our Approach," National Academy Foundation, accessed November 15, 2019, https://naf.org/our-approach/educational-design.
21) Ibid.

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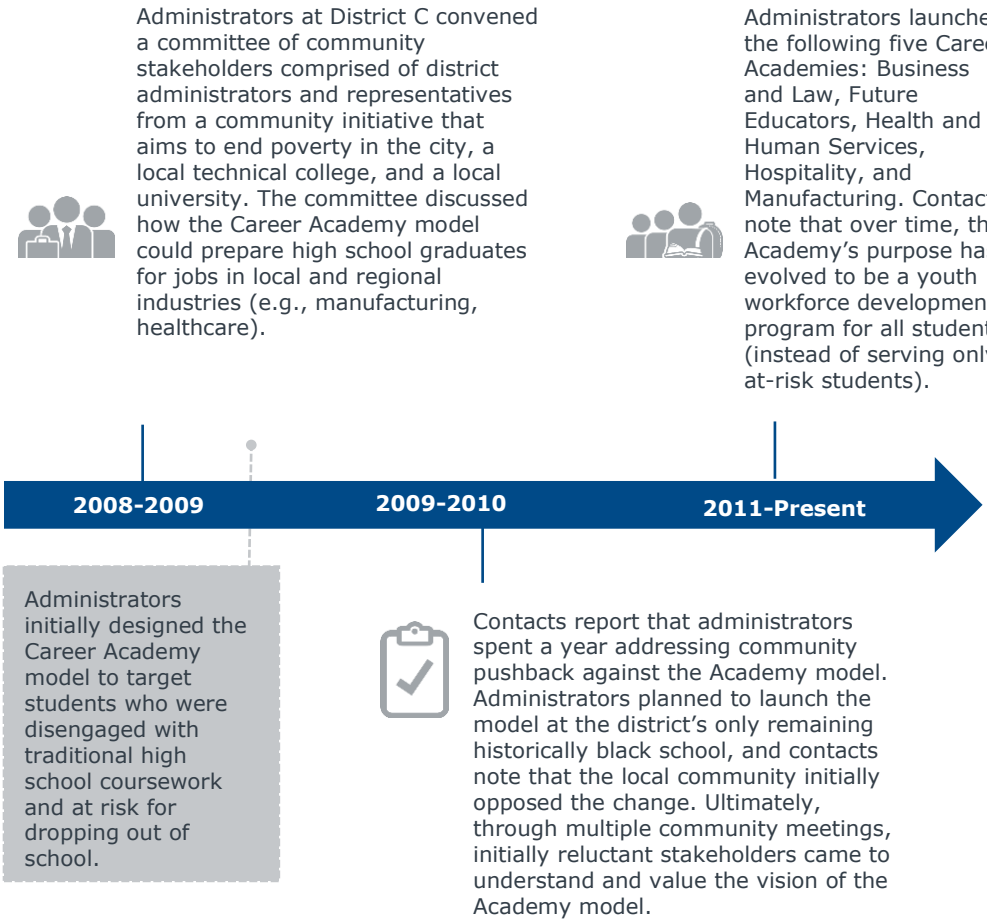
Profiled Districts Aligned Planning Timelines with Grant Deadlines and/or Community Engagement Processes

Administrators at District C, District A, and District B report varying planning timelines. Administrators attribute timeline variance to factors such as grant deadlines and community pushback.

Planning Timeline at District C



In comparison, contacts at District A note that, due to the W.K. Kellogg grant deadline, administrators adopted an unusually accelerated planning timeline. Contacts at District A caveat that Ford NGL districts typically spend two to four years accomplishing what administrators achieved in one year. In addition, administrators at District A had already established a Freshmen Academy for the 2018-2019 school year prior to the planning timeline below.

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Planning Timeline at District A

Exploration of Ford NGL Academy Model

Aug 2018-Oct 2018

- After administrators decided to implement the Academy model earlier in the spring, they hired an Academy coach in August using funding from the W.K. Kellogg grant.
- The Career Academy coach, high school principal, board members, teachers, and district administrators visited Metro Nashville Public Schools to study the Ford NGL Academy model.
- After conducting two school site visits at District A, Ford NGL wrote an initial report for the district. Administrators committed to partnering with Ford NGL in October.

Community Visioning Meeting

Nov 2018

- Administrators and Ford NGL hosted a community visioning session with over 125 community stakeholders. Stakeholders included teachers, parents, board members, students, and representatives from local higher education institutions, nonprofits, and foundations.
- Administrators and Ford NGL explained the Academy model and the role of Ford NGL to ensure implementation success. Community stakeholders discussed the ideal "portrait of a graduate" (e.g., skills and credentials upon graduation) and how it aligned with the Ford NGL Academy model.

Ford NGL worked with administrators at District A to plan and host the community visioning meeting. Ford NGL recommended that administrators create tactical teams following the community visioning meeting.

Implementation Planning

Dec 2018-March 2019

- Administrators created four tactical teams comprised of community members who volunteered to participate after the community visioning session. Administrators asked the teams to collaborate to create a strategic plan to implement the Career Academies. Across December and January, one team designed Academy themes and pathways, a second team determined work-based learning opportunities for each Academy, a third team brainstormed how to establish partnerships between the district and industry partners, and a fourth team outlined oversight/accountability expectations (e.g., progress checks).
- Administrators submitted the strategic plan to Ford NGL at the end of January 2019 and Ford NGL approved the plan by March. Administrators then began the implementation process for the Business, Engineering, and Technology and Health, and Human Services Academies.

In contrast to District A, administrators at District B spent two years (i.e., Spring 2015-Spring 2017) exploring the Career Academy model and considering a Ford NGL partnership (i.e., learning about Pinellas County Schools' partnership with Ford NGL) before committing to the first phase of exploration with Ford NGL in Spring 2017. Administrators at District B then spent another two years developing and finalizing their implementation strategic plan. Contacts at District A note that, if administrators did not operate under a tight grant deadline, administrators would have planned implementation on a timeline more similar to District B's.

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Allocate a Minimum of Eight Months to the Academy Implementation Process

The Career Academy Support Network (CASN) recommends that administrators dedicate eight months to one year to implement an effective Career Academy. CASN outlines specific implementation steps for school districts.[22]

CASN Sample Career Academy Implementation Timeline[23]

	Task	Months
	Create an advisory committee (see **pages 26-28** for more information on structure and role)	January to February
	Select and train Academy staff	January to February
	Orient the Academy within the larger high school (e.g., arrange cohort scheduling, orient counselors and high school staff)	March to June
	Design Academy curricula, with a focus on grades nine and 10	March to August
	Recruit and enroll incoming freshmen for the initial cohort	March to May
	Prepare facilities and equipment (e.g., purchase Academy-aligned technology)	April to August
	Create a calendar of events to increase students' exposure to career pathways (e.g., industry speakers, field trips)	July to August

Implement the Academy Model Grade by Grade Across Multiple Years to Focus Implementation Efforts

Contacts at profiled institutions emphasize that incremental implementation allows administrators more time to establish a strong program foundation. If administrators implement Career Academies with one grade cohort at a time, they can focus their efforts entirely on the needs of one grade cohort, rather than attempt to create structures to meet the needs of all four cohorts at the same time.

For example, administrators at District A began the Academy model with freshmen in fall 2018, added sophomores in fall 2019, and will add juniors and seniors in the following two years. Similarly, administrators at District B started the Academy model with freshmen in fall 2019 and plan to add one grade per year for a four-year implementation timeline. Administrators at District A, District B, and District D began

22) "Planning Guide for Career Academies," *Career Academy Support Network*, (2010): 16. https://files.eric.ed.gov/fulltext/ED524045.pdf.
23) Ibid.

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Career Academy implementation with the freshmen cohort to ensure that students received a year of exposure to different career pathways through the Freshmen Academy before selecting an Academy.

Funding

Seek Grant and Philanthropic Funds to Supplement District and Federal Funding for Academy Implementation

Administrators at profiled districts used district funds, federal funds (e.g., Title I and II), grants, and/or donations from business partners to fund Academy implementation. For example, administrators at three profiled districts—District A, District B, and District C—leveraged grants from foundations and/or institutions of higher education.

Sources of Funding for Academy Implementation at Profiled Districts

District Funds

- Administrators at District B, District D, District E, and District F used district funds to cover the costs of Academy implementation.

Federal Funds

- Administrators at District B used Title II funding to provide Academy-related professional development for teachers.
- Administrators at District D used Title I funding to implement the Career Academy model.

Grants

- Administrators at District A received a grant from the W.K. Kellogg Foundation to revitalize the school district, including its high school.
- Administrators at District B used two grants from the Kauffman Foundation to implement the Career Academy model and establish partnerships with business partners.
- Administrators at District C received a grant from the state technical college system, which specifically provides grants to communities that seek to launch Career Academies.

Donations

- Administrators at District C and District E received some funding from business partners.

Administrators at District E recruited local businesses to sponsor each of its six academies. Contacts note that each Academy sponsor makes a commitment of $300,000 in "time, talent, and treasure"—which may include offering internship and work shadowing opportunities to students, collaborating with teachers to integrate industry-relevant skills into the curriculum, and donating supplies. For example, a regional medical center—which, prior to Academy implementation, had already partnered with the district for another work-based learning program—sponsors the Health Science Academy.

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As another example, a bank sponsors the Academy of Business and Entrepreneurship at District E. In an article profiling this partnership, bank representatives noted the partnership allows the bank to both offer financial literacy education to students through experiential learning and increase visibility in the community.[24]

District E and Bank Partnership Structure[25]

Partnership Components	Benefits to Students
On-Campus Branch • The bank established an on-campus branch (built at the bank's own expense) to facilitate learning. • The bank staffs the branch from 10 am to 2 pm during the week. The bank hired a teacher with over two decades of teaching experience and trained her to be a teller and personal banker at the branch.	**Workplace Learning** • Students create and manage accounts at the bank to practice financial literacy. Students also conduct research on banking and visit the bank to ask specific questions. • The bank plans to offer internships and part-time jobs to students to work as tellers at the on-campus branch to facilitate work-based learning.[26]
Curriculum Support in the Classroom • The on-campus branch's dedicated teacher works with district teachers to integrate financial literacy into their courses.	**Financial Literacy** • Bank employees often deliver financial instruction directly to students. For example, when students in a Spanish class learn banking terms in Spanish, two bank experts—one who is bilingual in English and Spanish—visit class to explain banking terminology and processes. • The Academy recently hosted a Spanish night at the bank, in which students explained basic banking processes to Spanish-speaking community members. • Research literature demonstrates that increasing financial literacy in young adults (i.e., high school students) leads to better personal finance behavior after graduation.[27]

24) Article profiling District E.
25) Ibid.
26) Ibid.
27) "The Case for High School Financial Literacy," Champlain College Center for Financial Literacy, accessed November 15, 2019, https://www.champlain.edu/centers-of-experience/center-for-financial-literacy/report-national-high-school-financial-literacy/the-case-for-high-school-financial-literacy.

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Professional Development

Provide Professional Development Opportunities to Teachers to Ensure High-Quality Instruction within Career Pathways

At District D, administrators arranged site visits to companies and college campus visits for teachers to prepare them to teach in Career Academies. For example, teachers in the Freshmen Academy and Health Services Academy visited the local hospital to learn about job pathways in the healthcare field. Teachers also visited colleges and trade programs to learn about different program offerings. By providing these professional learning opportunities, administrators ensure that teachers understand evolving industry needs and skills needed in specific postsecondary pathways.

EAB research confirms that administrators should prioritize teacher professional development to ensure that teachers deliver quality communication to students on career pathway, such as careers, education pathways, and labor market trends. For example, at Township High School District 214 in Illinois, administrators provide pathways-based professional development training and materials for CTE teachers. CTE teachers participate in a professional development course at the beginning of the school year and can choose to participate in career-related events in the community to increase their understanding of on-the-job skills.[28]

For more information on Township High School District 214's Pathways and Careers professional development course, review **page 29** of the EAB study **Meeting the Career Readiness Imperative**.

Continuous Improvement

Track Student Academic and Behavioral Outcomes to Gauge Success of the Academy Model

Administrators at profiled districts monitor different academic and behavioral metrics to assess the impact of the Academy model on student outcomes.

28) Siska Shaw, P Talbot, M Rolfes, A Bruce, R Richards, M Wahlstrom. "Meeting the Career Readiness Imperative," *EAB*, 2018, 29. https://eab.com/research/district-leadership/study/meeting-the-career-readiness-imperative/.

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Sample Student Metrics and Outcomes Monitored by Profiled Districts

Metrics

Academic

Profiled Districts
• **District A:** student retention rates • **District C:** state assessment scores, number of students who complete internships, graduation rates, number of students who enter into employment or enroll at postsecondary institutions • **District F:** graduation rates

Behavioral

Profiled Districts
• **District A**: number of behavioral incidences (e.g., suspensions), attendance rates, surveys on freshmen's preparation for selecting a Career Academy • **District C:** attendance rates

Outcomes

Academic

Profiled Districts
• Contacts at District A note that more incoming sophomores chose to stay in the district for the 2019-2020 school year (the year following Freshmen Academy implementation), compared to the previous year • Academy students at District C consistently demonstrate higher graduation rates and test scores than their peers

Behavioral

Profiled Districts
• Administrators at District A expect to see a decrease in behavioral incidences and an increase in attendance, due to increased student engagement in small learning communities. Research confirms that small learning communities lead to a decrease in behavioral incidences and better attendance rates.[29] • Academy students at District C demonstrate higher attendance rates than their peers

Though contacts report limited data on outcomes, research literature demonstrates that Career Academies lead to an increase in attendance, earned credits, and high school graduation rates. In addition, Academy students are more likely to attend college, compared to their non-Academy peers.[30]

Consider Administering Student Surveys to Assess Specific Academy Initiatives

At District A, administrators conduct student surveys at the beginning and end of their freshmen year to assess the effectiveness of the Freshmen Academy and develop continuous improvement strategies. For example, at the start of the year, students indicate their level of confidence with choosing a career pathway. At the end of the year, students reflect on the impact of specific initiatives, such as the career exploration fair and college visits, on their decision to choose an Academy pathway. See **Appendix (pages 32-33)** for these surveys.

29) Kathleen Cotton, "New Small Learning Communities: Findings from Recent Literature," *Northwest Regional Education Lab,* (2001): 13. https://eric.ed.gov/?id=ED459539.
30) Betsy Brand, "High School Career Academies: A 40-Year Proven Model for Improving College and Career Readiness," *American Youth Policy Forum*, (Nov 2009). https://eric.ed.gov/?id=ED526425; Steven W Hemelt, MA Lenard, "Career Academies and the Resurgence of Career and Technical Education in the United States," *National Center for Analysis of Longitudinal Data in Education Research*, (2018): 2. http://caldercouncil.org/wp-content/uploads/2018/10/CALDER-Policy-Brief-No.-8-0918-1.pdf.

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Consider Using External Career Academy Guidelines to Assess Implementation

The **College & Career Academy Support Network** provides additional Academy implementation resources, including guides on how to create course sequences and cultivate industry partners.

Researchers and professional organizations have created external networks to help administrators gauge the effectiveness of Career Academy implementation.[31] For example, CASN provides a self-assessment tool that outlines 25 core components in the following three categories: small learning community structures, curriculum and instruction, and partnerships with employers and higher education. Administrators can use the accompanying scoring guide to rate each component on a four-point scale.[32]

In addition, the National Career Academy Coalition (NCAC) provides 10 standards of practice for effective Academies. These include standards related to Career Academy mission and goals, faculty and staff, and professional development and continuous learning.[33] Administrators can use these standards of practice to benchmark their Academy implementation.

Create Industry Advisory Committees to Ensure Ongoing Improvement of Academies

Administrators at District C, District E, and District F established an advisory committee—comprised of district administrators, teachers, and/or business partners—for each Academy. Advisory committees help to continually strengthen the Academies through curriculum reviews and business partnership outreach.

31) "Planning Guide for Career Academies," *Career Academy Support Network*, (2010): 24-26. https://files.eric.ed.gov/fulltext/ED524045.pdf.
32) "Self-Assessment Guide for College and Career Academies," *College & Career Academy Support Network*, (2014): 1-15. https://casn.berkeley.edu/wp-content/uploads/resource_files/Self-assmnt-guide-10-13-2014-FINAL.pdf.
33) "The National Standards of Practice," National Career Academy Coalition, accessed November 15, 2019, https://www.ncacinc.com/nsop.

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Advisory Committee at District C

Meeting Structure

Role

Assess alignment of Academy curricula with evolving industry needs

Members

- School board member (Chair)
- Director of Academies
- 12-18 business representatives, typically at the executive level (e.g., Director of Human Resources, Vice President of Engagement and Global Relations, Manager)

Frequency

Once every two years

Meeting Agenda

1. The committee reviews and celebrates programming highlights of the Academy in the previous two years. For example, the committee leader presents examples of students' field trips and internship opportunities.
2. The committee leader distributes a hard copy of the Academy curricula, which also includes the skills that students learn.
3. In small groups (i.e., three to four), committee members discuss how the curricula aligns with evolving industry needs and skills. Example questions include:
   - Which skills are most relevant?
   - What are the challenges in hiring and retaining employees?
   - Are there skill gaps that the Academy should address?

   Committee members reconvene in one group to debrief discussions.
4. As a whole committee, members discuss new project-based and work-based learning opportunities for Academy students.

For example, contacts note that when the Health and Human Services advisory committee convened two years after district administrators first launched the Academy, the committee decided that the billing and coding pathway did not align with the evolving healthcare landscape. The committee explained that patient and insurance data would move to exclusively online platforms in the following three to five years (i.e., 2016-2018). Instead of preparing students to become billing and coding technicians, industry experts emphasized that teachers should train students to become phlebotomy technicians and certified nursing assistants—examples of positions that would be in higher demand moving forward. District administrators accordingly integrated industry certifications related to phlebotomy and nursing into the Health and Human Services Academy.

Advisory committees at District F focus on day-to-day operations of Academies, as NAF already provides a rigorous, industry-aligned curricula.

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Advisory Committee at District F

Meeting Structure

Role

Discuss operations, initiatives, and student achievements

Members

- Director of Academies
- District administrators
- Teachers
- Business partners

Frequency

Three times per year

Sample Meeting Discussion Points

- Discuss finance (e.g., fundraising activities)
- Brainstorm new business partner leads
- Showcase student achievements (e.g., internships)
- Review upcoming events and initiatives

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5) Research Methodology

Project Challenges

Leadership at a member district approached the Forum with the following questions:

- What motivated contact districts to implement the Career Academy model?
- Did contact districts partner/consider partnering with Ford Next Generation Learning to implement the Career Academy model? Why or why not?
- How did contact districts align Career Academy themes with local workforce needs?
- How did contact districts establish partnerships with local industries to support the Career Academy model?
- How did contact districts fund Career Academy implementation?
- How did contact districts create a timeline for implementation?
- How did contact districts determine the cohort of students with which to begin implementation?
- How do contact districts measure the success of the Career Academy model?
- What changes, if any, have contact districts observed in student outcomes since implementing the Career Academy model?
- How do contact districts ensure the ongoing success of the Career Academy model?

Project Sources

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Research Parameters

The Forum interviewed school and district-level administrators at districts that implemented Career Academies.

A Guide to Districts Profiled in this Brief

Institution	Location	Approximate Enrollment
District A	Midwest	4,000
District B	Midwest	5,000
District C	South	13,500
District D	Midwest	21,000
District E	Midwest	8,000
District F	Northeast	7,000

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6) Appendix

Freshmen Academy Pre-Survey at District A[34]

Question	Response Options
How confident do you feel in choosing a career pathway?	• Not confident • Somewhat confident • Pretty confident • Very confident
What types of exposure could help you feel more confident in choosing a career pathway?	• Career panels with employers from different pathways • Career exploration fair to learn about jobs at different businesses • Learning how my skills and interests relate to a career pathway • Doing a college visit at a school that specializes in the areas I am interested in
How prepared do you feel to follow a career pathway after graduation?	• Not prepared • Somewhat prepared • Pretty prepared • Very prepared
Please rate your level of agreement with the following statement: "I feel like my high school will help me find a career pathway that fits my skills and interests."	• Very much agree • Agree • Somewhat agree • Do not agree
Please rate your level of agreement with the following statement: "I am excited about what Career Academies mean for me and my future."	• Very much agree • Agree • Somewhat agree • Do not agree • I don't know what Career Academies are

34) District A, provided November 18, 2019.

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Freshmen Academy Post-Survey at District A[35]

Question	Response Options
How confident do you feel about your career pathway choice?	• Not confident • Somewhat confident • Pretty confident • Very confident
How prepared do you feel to follow a career pathway after graduation?	• Not prepared • Somewhat prepared • Pretty prepared • Very prepared
Please indicate your level of agreement with the following statement: "The career panels helped me make a decision about what pathway and Academy I am most interested in."	• Very much agree • Agree • Somewhat agree • Do not agree
Please indicate your level of agreement with the following statement: "The career exploration fair helped me make a decision about what pathway and Academy I am most interested in."	• Very much agree • Agree • Somewhat agree • Do not agree
Please indicate your level of agreement with the following statement: "My college visit helped me envision myself following my chosen career pathway after graduation."	• Very much agree • Agree • Somewhat agree • Do not agree

35) District A, provided November 18, 2019.

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