Exercise One - Understand the Challenge
Why a Changing World Requires that We Reimagine Public Schools

*"Today, the journey from adolescence to adulthood is far more daunting.
It takes much longer, and the roadway is filled with far more potholes,
one-way streets, and dead ends."*
- Pathways to Prosperity

Young people today face an increasingly complex and rapidly changing world. The challenge for next generation educators is to prepare students for this changing world, and how to smartly and strategically navigate the rough-and-tumble passage to work and complex postsecondary experiences, and all the transitions that inevitably come with both. We call this tumultuous (but exciting) time *the wayfinding decade* — because it's exactly that: young people working to find their way. In the past, we as educators might have thought of this challenge purely in academic terms. Those days are long gone. To succeed in this world, students need a broader and deeper set of skills, knowledge, and habits of success.

Using the tools in this exercise, we're going to dive into this changing world and the decisions and realities students will face as they make their way. This exercise, in particular, will address the first of MyWays big important questions, which will be the through-line as you consider your definition of student success, learning design, and next gen assessments in later exercises. The questions we'll tackle here are:

> *Why* do we need to establish a broader, deeper definition of student success? What are the economic and social-change trends that make rethinking learning and school design so urgent? What are the roadblocks that impact my students?

This exercise sets the stage for the work to come. And what's important about beginning here is understanding the why — in what ways and how has the world of work and life has changed and accelerated so immensely — and what needs to be true for young people to excel in their futures. NGLC's national next gen school-design grantees almost universally confirm that without a deep, community-wide understanding of the *why*, the rest of the work — the *what* and the *how* — is simply too hard and too challenging to traditional structures, policies, habits and mindsets to succeed and to sustain.

◆ Here are the tools we'll use:

- Five Career Roadblocks Worksheet
- Five Work/Learn Decisions Worksheet
- Five Essential Types of Social Capital Worksheet
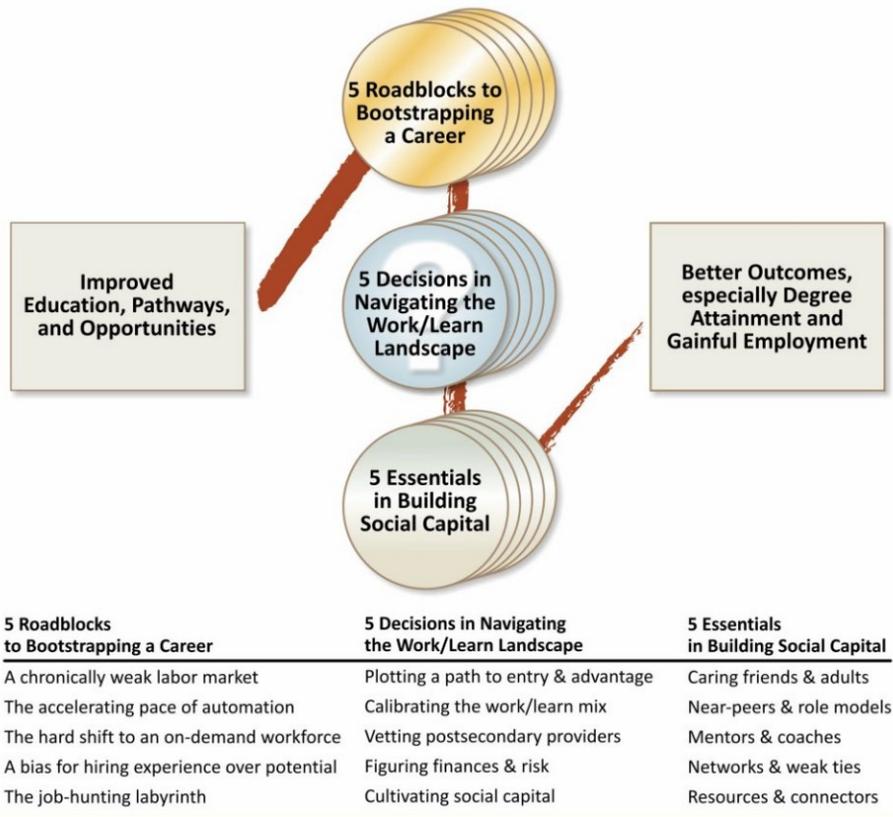- Five Aspects of Adolescent Development Worksheet

◆ Key Concepts

Before you dive into using the tools, there are some important concepts to dig into first. With each of the exercises, reading the associated reports will be most beneficial to deepen your learning and understanding (and because they are rich with insight and fun to read!). But we want you to be able to roll your sleeves up and play with these tools even if you haven't yet read the reports. Understanding these concepts will let you do that.

5-5-5 Realities

Only half of young people ages 16 to 24 held jobs in 2016, the lowest level since World War II. College degrees are no longer the safe harbor they once were, and the opportunity gap continues to widen at alarming rates. The worsening environment for young college graduates and non-graduates alike (which we dig into in Report One) injected the MyWays Project with a special urgency to go beyond loosely defined "21st century skills" and to deeply explore the specific trends and challenges young people are facing — to clearly describe the real-world conditions that our students will need to address. We distilled our research into the 5-5-5 Realities, highlighting 15 key factors and trends that all young people are likely to confront during their wayfinding decade. To be work/learn ready means understanding these realities and being equipped with the competencies and experience needed to address them. The 5-5-5 Realities are as follows. (Reports 2-5 go deep into each of these realities. We provide a short highlight of each of the concepts here so you can dig into the tools, but we highly recommend reviewing the full reports.)

To achieve better outcomes, we need to improve education, pathways, and opportunities to address the 5-5-5 Realities

5 Roadblocks to Bootstrapping a Career	5 Decisions in Navigating the Work/Learn Landscape	5 Essentials in Building Social Capital
A chronically weak labor market	Plotting a path to entry & advantage	Caring friends & adults
The accelerating pace of automation	Calibrating the work/learn mix	Near-peers & role models
The hard shift to an on-demand workforce	Vetting postsecondary providers	Mentors & coaches
A bias for hiring experience over potential	Figuring finances & risk	Networks & weak ties
The job-hunting labyrinth	Cultivating social capital	Resources & connectors

Five Career Roadblocks

These roadblocks focus on the specific challenges young people face as they enter the labor market in an age of acceleration. Understanding these roadblocks is crucial, right now, so that we as educators can continually ask ourselves: how will we best prepare our students to compete in this rapidly changing economy and to lead happy, productive lives?

Roadblock One: A chronically weak labor market
A chronically weak labor market at the entry end means that there are vastly fewer jobs than young, eligible workers. Students face competition from the outset, so in addition to finishing school with some idea of what they'd like to do as a career, they're also tasked with understanding the labor market into which they're entering. To rise to the top, they need prior work experience, a map of promising job sectors, a coherent plan for postsecondary learning, and a survival plan when full-time work is simply not available.

Roadblock Two: The accelerating pace of automation
MIT's Erik Brynjolfsson and Andrew McAfee put it bluntly: "[T]here's never been a better time to be a worker with special skills or the right education, because these people can use technology to create and capture value. However, there's never been a worse time to be a worker with only 'ordinary' skills and abilities to offer, because computers, robots, and other digital technologies are acquiring these skills and abilities at an extraordinary rate." This shift towards automation obviously affects all laborers, but young workers, who have not yet acquired the same skills and experience as their more mature colleagues, have been and will continue to be hit hardest. And the trend towards automation is not just in

repetitious low-skill and middle-skill jobs; high-skill occupations — including law, radiology, and IT — are also being affected. Because it's impossible to predict where automation is headed next, it's important that students entering the workforce are adaptable and flexible in their career aspirations.

Automation creates roadblocks in at least five distinct ways:
- Students are competing with older, more experienced workers for too few jobs.
- Many middle-skill jobs that are the traditional on-ramps for young workers are being automated away while many of the low-skill routine jobs that remain offer little training or advancement.
- Junior-level jobs in law, computer programming, and many other high-skill fields are being automated as well, increasing the risk of students pursuing an expensive college education and ending up unemployed.
- Picking a training program, college major, or career entails much more uncertainty and risk, as the future of that career path may be short-lived and never yield a suitable return on investment.
- As smart machines take on routine and predictable tasks, young workers lose invaluable opportunities to observe and learn from more experienced co-workers and supervisors.

Even with these daunting roadblocks, we as educators can help equip and prepare our students for what lies ahead by informing and cautioning students about technological changes in the workplace and developing the competencies that will help students compete in an economy increasingly structured around smart machines. It's important to continue to emphasize "people skills," too — managing, leading, negotiating, communicating, teaching, coaching, selling, persuading, and caregiving. In an increasingly automated workplace, these social skills can set young workers apart.

Roadblock Three: The hard shift to an on-demand workforce
They are freelancers, subcontractors, and consultants — the workers that, as Time magazine remarked in 1993, are "fluid, flexible, disposable." They are also, in 2017, increasingly the New Normal. These workers, in addition to staying up to date in their fields, have to constantly sell their skills, develop and nurture relationships with a myriad of employers, and deal with negligible benefits and zero job security. It's estimated that about half of workers under 30 are on-demand workers. Though there was a time when part-time work led to full-time offers, now only 27% of on-demand workers receive permanent positions.

Roadblock Four: A bias for hiring experience over potential
It's the Catch-22 of today's labor market — to get a job, you need to have already had that job. Because of the abundance of workers and the very few spots employers are looking to fill, job applicants are expected to have experience in the field they're entering into — but how do you get that job in the first place? This conundrum most directly affects workers with less education, especially those trying to enter the workforce after high school or a 2- or 4- year college program. Even attending college and graduating with high marks isn't enough: in fact, the top five attributes that employers are looking for have nothing to

do with academic performance. This shift towards hiring workers with previous experience also means that employers are cutting back on new employee training. To help students succeed, we as educators must make deliberate accommodations for students to acquire work experience during their high school years. That means reimagining, reinventing, and dismantling the wall between school and real-world work.

Roadblock Five: The job-hunting labyrinth
Applying for a job used to mean taking your resume to offices, filling out paper applications, or attending networking events. However, with the overwhelming amount of job applicants, employers don't have time for the stacks of paper, so most job seekers are applying online and their applications are screened by algorithms that — like all technologies — are imperfect. Even in well-to-do families, the modern job-hunting labyrinth of software-driven hiring and unrealistic employer expectations is a daunting roadblock for young job seekers. Furthermore, less advantaged students face even more onerous odds — apart from the academic achievement gap — stemming from less work-based experience, social capital, linguistic/cultural familiarity, Internet access, and financial resources.

Five Work/Learn Decisions

Between 1950 and 2010, the number of career fields identified by the US Census Bureau increased from 270 to 840. From 1950 to 2014, the number of colleges and universities grew from 1,850 to 4,720, and between 1985 and 2010, the number of programs of study offered by postsecondary education and training institutions grew from 410 to 2,260! The bottom line: lots of opportunities exists for students, if they can sort out the options and find programs and pathways that fit. Without that kind of deliberate analysis, today's complex work/learn landscape presents a tremendously daunting challenge to newly minted high school (and college) graduates. These five work/learn decisions are what we have identified as central as students make plans for postsecondary education and work, and consider the personal, financial, and social resources they will need to be successful. Make sure to explore Report 3, *5 Decisions in Navigating the Work/Learn Landscape* for a deep dive into each of these decisions.

Decision One: Plotting a path to entry and advantage
Young people need to learn how to be strategic as they plan for their future and make the conscious decision of what path makes the most sense. There are some important understandings to keep in mind when it comes to this decision. The top academic students are likely to succeed in college, especially for those coming from higher socioeconomic status. The far more difficult path is the one for students who are not academically prepared or only partially prepared. Approximately half of young people earn a degree or certificate, but another half top out with a high school diploma — at a time when prospects for low-skill workers are at historic lows. On average, four-year institutions demonstrate better degree completion results while community colleges, particularly the best ones, offer flexibility and a wide variety of academic and degree programs. On average, bachelor's degree recipients enjoy economic advantages, but 27% of people who have only licenses or certificates earn

more than the average bachelor's degree recipient. This decision requires that students understand their choices.

Decision Two: Calibrating the work/learn mix
The vast majority of college students work, which dramatically alters the postsecondary experience. Working has many important benefits, but often students are working too many hours (which ends up hurting their learning) and because of a lack of work options, are choosing jobs that are not closely related to their fields of study. To change that, students need to arrive at college with in-demand skills, developed in high school, that are related to their field of interest or is capable of earning more than minimum wage (or both!). For example: computer help desk, simple Web development, teaching piano, coaching younger children, house painting, internships with local-area firms or organizations, or other entrepreneurial pursuits that build off of extracurricular activities, internships, and career exploration activities of K-12 learning environments. When looking for a job, students and mentors should prioritize jobs that provide: flexible hours (no more than 20 hours a week); a "school comes first" environment; opportunities for skill-building, hands-on training, supervision and mentorship; connection to classroom content; career-related learning and networking; professional work environment (e.g. business dress, deadlines, effective communication); clear, consistent and constructive feedback; and academic credit. Our job, as educators, is to help students ask themselves these questions before the time arises: Given my interests, academic record, and financial means, what are my working and learning options? What is the optimal work/learn mix initially, and over time?

Decision Three: Vetting postsecondary providers
The ability to find and evaluate colleges and certificate-granting institutions is a crucial and troublesome part of the biggest financial decision most people will ever make. There are three key issues. The first is "undermatching" — that is, the failure of many low-income high-achieving students to find and apply to selective schools that match their ability and potential. The second is the proliferation of certificate programs: with few cataloging and rating services available, the vetting effort is haphazard and fraught with risk. Finally, many for-profit institutions practice predatory behavior, preying on the poor and vulnerable with programs that demonstrably over-promise and drastically under-deliver. Students need to be able to navigate which postsecondary education and training providers offer the highest quality experience, will be a high return on their investment, and will be a springboard for the new opportunities they need.

Decision Four: Figuring out finances and risk
"Everyone should be concerned about this new environment where college appears to be necessary for a child's future, increasingly expensive, but also increasingly risky in terms of career prospects," says Peter Cappelli. His challenge sums up this decision perfectly: higher education (including public higher ed) is getting inexorably more expensive. Students need to be able to make smart decisions about how they will finance their education, with a focus on avoiding crippling debt and mitigating risk (e.g. starting a four-year degree program but leaving before they get the degree, but still accruing thousands of dollars in debt). We have to help them have a plan — and know how to pivot when the plan changes.
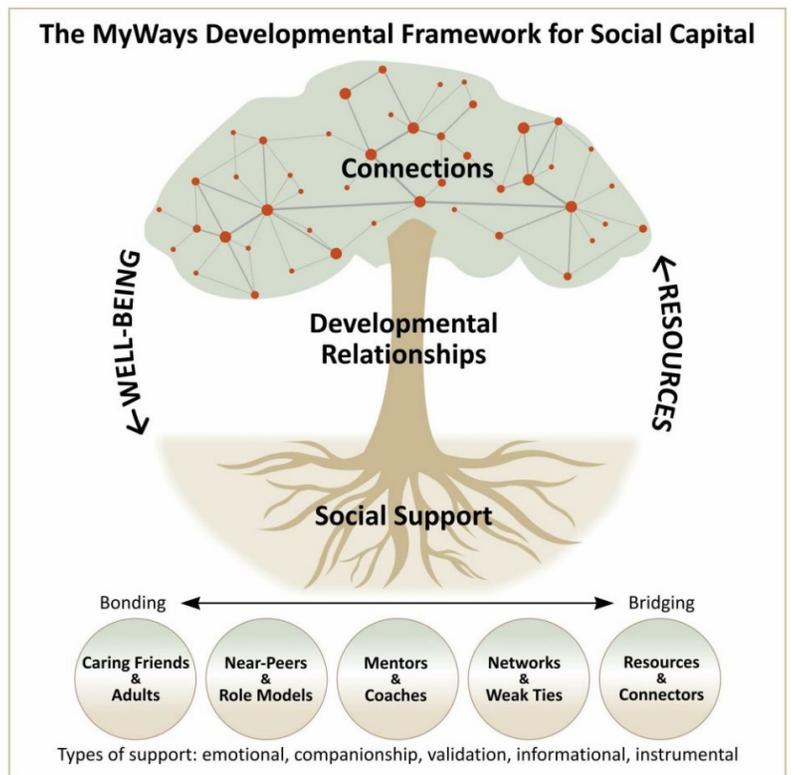
Decision Five: Cultivating social capital

Whom you know, the connections you have, the ways you put them to work for you: *social capital* is a key part of how students and adults alike develop work/life opportunities. Caring friends and adults, neer-peers and role models, mentors and coaches, networks and weak ties, and resources and connectors are the various types of social capital that students need to cultivate. This decision focuses on how they will do it, especially if they lack family connections that more easily open doors — and the opportunities we need to create in K-12 education settings to help them do it.

Five Essential Types of Social Capital

"[Social capital plays] two very important roles in the life of young people," Australian researcher Paulina Billett says, "as a support in times of need and as social leverage to get ahead."

Social capital, the "resources and social supports embedded in one's networks or associations," has been shown to differentiate successful education attainment, career advancement, and entrepreneurship as well as personal satisfaction and wellbeing. Conversely, gaps in social capital among children and young people caused by neighborhood, school, and marriage polarization have a devastating impact on their ability to develop and lead healthy, successful lives. Next gen educators and models need to intentionally help students cultivate these robust, multilayered ecosystems of networks and relationships, and understand how to leverage them.

Through our research, we identified five types of essential social capital that all people need for healthy development and success. These types span both the bonding social capital, which provides emotional support, companionship, validation, and the bridging social capital, which gives us informational and instrumental support. These roles are embedded and evolve within relationships with parents and friends, teachers and other institutional agents, and neighbors and acquaintances, and it is our job as next gen educators to consider how we create and cultivate circumstances for students to develop these bonds.

The MyWays Developmental Framework for Social Capital

Connections

WELL-BEING

RESOURCES

Developmental Relationships

Social Support

Bonding — Bridging

| Caring Friends & Adults | Near-Peers & Role Models | Mentors & Coaches | Networks & Weak Ties | Resources & Connectors |

Types of support: emotional, companionship, validation, informational, instrumental

1. **Caring Friends & Adults:** Emotional support, companionship, and validation provided by family members, peers, and close relationships with unrelated adults is the bedrock of social capital. *(Read Pages 21-25 in [Report 4](#) for examples of these caring adult relationships and why they are so essential to our lives as humans.)*

2. **Near-Peers & Role Models:** Reid Hoffman and Ben Casnocha wrote in *The Start-Up of You:* "The fastest way to change yourself is to hang out with people who are already the way you want to be." And that gets at the heart of this type of social capital, which focuses on the ideas, inspiration, and behavior patterns modeled by real and fictional individuals that we have direct contact with or have "met" through history, entertainment, games, reading, and the like. That's why it's so important to create situations where students are connected meaningfully to near peers and those we consider role models. *(Read pages 25-27 in [Report 4](#) for more, including why a Hall of Fame of role models is a good use of students time, and how some schools are leveraging these relationships now.)*

3. **Mentors & Coaches:** This type of social capital provides young people with informational support, counseling, emotional support, and validation built on a relationship of mutual knowledge and trust. Mentors and coaches are a key part to navigating the wayfinding decade of postsecondary choices and jobs, but are important beyond that (think of how coaching has become a part of many adult lives, for attaining goals). *(Read pages 28-31 in [Report 4](#) for examples of how mentors and coaches are being embedded in learning experiences and the research behind it.)*

4. **Networks & Weak Ties:** Connections to any form of social network including one's "strong ties" (friends and close relationships) and "weak ties" (acquaintances and friends of acquaintances). *(Read pages 32-35 in [Report 4](#) to learn more about the network effect and how weak ties often lead to opportunities.)*

5. **Resources & Connectors:** Informational, instrumental (financial, material, services), and social support accessed through networks and individuals helping bridge or broker connections. *(Read pages 35-39 in [Report 4](#) to discover how next gen educators can help students leverage key resources to build these necessary connections.)*

Five Aspects of Adolescent Development

Once upon a time, adolescence was fleeting. Children prepared for adulthood through daily observations of parents and other adults, participating in work and home tasks of the family and community. Kids grew naturally into their adult roles, powered by cultural conventions and adult proximity. Today, adolescence looks radically different, beginning with puberty as early as age nine or 10 and extending at least through the mid-20s before careers, financial independence, and marriage signal the passage into adulthood. Though child labor laws have succeeded in protecting children from the hazards of working, they have also dramatically reduced adolescents' connections to the adult world. The abrupt switch from high school to the life beyond is staggering — where students once were supported and comforted by one institution, they are suddenly thrown into a fragmented, ill-organized, baffling array of options for further learning, training, and work. So what

can we, as educators, do to help prepare our adolescents for the winding road ahead? Here is an overview of the developmental tasks we can use to help guide and prepare our young adults, who we are calling apprentice-adults. Make sure to read Report 5: *Preparing Apprentice-Adults for Life after High School* for a full description of the stories and research of these tasks and more.

Developmental Task 1: Reclaiming adolescence as an age of incredible growth and potential

The first challenge is reframing how we think, speak, and view adolescence. Instead of viewing adolescence as a period of raging hormones, these years are a precious time of developmental potential that lays the foundation for our adult mental capacities. Adults are quick to label young people as immature and rash. However, Daniel Siegel, author of *Brainstorm: The Power and Purpose of the Teenage Brain*, reframes these character traits into four attributes: increased emotional intensity, social engagement, novelty seeking, and creative exploration. As adults, we can help adolescents navigate this tricky time by providing opportunities to nurture the upsides of these attributes while mitigating the downsides. We also need to be better about "the work" we have assigned to adolescents, which currently is: do well in school and stay out of trouble. Not a compelling mission for some youth. Success in school is too narrowly defined, as is the social role of 'student' itself. And avoiding trouble is not a goal to strive for. By not providing young people more meaningful purposes, we're denying adolescents entry points into adult life — the ways they could learn from, participate in, and contribute to "the real world." And this disconnect disproportionately impacts disenfranchised youth, who lack the social capital and other resources to augment the narrow school-based experiences that could propel them into adult society. We as educators are urgently called upon to provide adolescents with developmentally appropriate entry points into the adult world.

Developmental Task 2: Finding self, strengths, and direction

Erik Erikson's definition of adulthood, which he called an "enduring identity," integrates the many selves of childhood, along with the feelings, self-discoveries, and aspirations we hold for the future. Key parts of that self are the specific strengths within ourselves that we elect to nurture and express on the journey to adulthood. Integral to self-awareness and personal satisfaction, the development of our personal strengths is also increasingly the key to making ourselves marketable, helpful, and adaptable in the world of work. Interest in non-academic development — in terms of grit, growth mindset, resilience, emotional intelligence, and other such skills — has generated unprecedented attention over the past decade and, consequently, were an important part of the MyWays research scan. Many adolescents, particularly those with familial, racial, cultural, economic, or personal differences outside the white mainstream, have never been able to count on a predictable future and have often traveled a far more challenging journey to acquiring the "sense of internal consistency" associated with an integrated identity. For American students of color attending low-income, majority-minority schools, educator commitment to identity development and confidence-building as they enter the world of higher education and employment is crucial.

There are a thousand different ways to be a great teacher or project manager or chef or

artist or caregiver. What makes humans so special is that among us are horse-whisperers and information designers, language translators and deep sea divers, ant researchers, midwives, and circus performers. Our talents and strengths are highly varied and, at times, surprising. So how can we help young people find their inner strengths and feel confident as they enter the adult world? Our job is to keep that question in mind as design our definition of student success, learning experiences, and models.

Developmental Task 3: Acquiring capability and agency

Competence, in the 21st century, means an individual becomes capable of transferring what they learned in one situation and applying it to a new situation. This competence requires both capability, "knowledge and the understanding to use it real-world situations" and agency, "a deep and durable self, acting to shape one's learning and environment." Agency is a dance between retrieving past knowledge and experiences, projecting the future, and informing and shaping the present. And experience, of course, plays a central role in that since the more you have seen and lived, the more prior knowledge you can cull up when the situation presents itself. Helping next generation educators focus on learning constructs and approaches that foster capability and agency (and broader and deeper competencies) is one of the goals of the MyWays Project. The connection of capability and agency across all of the four domains and 20 competencies is an important construct of the MyWays Project, and we will revisit it in later exercises.

Developmental Task 4: Overcoming trauma and personal challenges

The fourth task, for a great number of apprentice-adults, is overcoming or mitigating the special challenges of trauma, poverty, physical or health limitations, emotional or learning difficulties, abuse or neglect, addiction, language and cultural barriers, and discrimination. One positive outcome of the nation's controversial move towards high-stakes, standards-based testing has been a heightened awareness, through data analysis, of the damage that poverty and these other challenges can cause a child; in response, we have seen the rise of community schools, wraparound services, and professionally-trained counselors. Addressing toxic stress in adolescence is important for two reasons: First, when children reach their teenage years and begin to have more independence, toxic stress often triggers risky and disruptive behaviors. Second, because the adolescent brain is highly plastic and still developing, the effectiveness of trauma treatment is often higher then than in later years. With nearly half of all children experiencing Adverse Childhood Experiences (ACEs) — including neglect, abuse, and household disturbances — it's imperative that we as adults help children and adolescents develop strategies to cope with and overcome these stressors.

Developmental Task 5: Building relationships, social capital, and guidance

Social connectedness is vital to psychological health in its own right; however, our focus here is on three aspects that will enable apprentice-adults to on-ramp smoothly to the adult highway. First is the shift from the peer world to the adult world. To become a successful adult, adolescents must first forge meaningful peer relationships, through which they can learn from one another and energize each other as they master new ideas and concepts. Next up, social capital: a world that operates on networks and social capital can be

problematic for apprentice-adults not practiced in seeking new contacts and maintaining relationships. Many adolescents are expert in social media and connecting within the peer world, but have few adult acquaintances beyond their family. Others are not looking for, or are too shy or embarrassed, to act in such an "adult way." As one next generation educator says, "we need to help them delineate between making friends and making contacts." For many minority adolescents, there is the added complication of needing to become comfortable culture-switching and code-switching between their informal peer culture and language and the more formal adult culture and language. Despite these difficulties, building social capital especially among adult contacts while still on the acceleration lane is an enormous advantage to every apprentice-adult, and they all need encouragement and support to apply themselves to this part of their development.

Last up: being their own guide. In today's society, students themselves are tasked with becoming more proactive in seeking guidance and being the driver (not the passenger) of the guidance process, including the cultivation of mentors. They should begin gaining experience and skill at this responsibility as early as possible, and think of the journey as "permanent beta" — 1) *always be starting,* and 2) *forever be a work in progress.* Such a mindset means being forever curious about how the world around you works, where your strengths and opportunities lie, and how you can best move forward — which we as next gen educators should help cultivate, as the Age of Accelerations is going to *require* it of all of us.

◆ Dig Deeper

The MyWays website is rich with information for you to explore. Here are the reports we recommend taking a look at as you complete this exercise:
- 5 Roadblocks to Bootstrapping a Career (Report 2)
- 5 Decisions in Navigating the Work/Learn Landscape (Report 3)
- 5 Essentials in Building Social Capital (Report 4)
- Preparing Apprentice-Adults for Life after High School (Report 5)

◆ Putting Concepts to Work: Download Tools

Now that you have explored the key concepts, it's time to start using the tools. When you download the tools, you will find the tool itself, along with a deeper description of its purpose and instructions for use.

Five Career Roadblocks Worksheet

Five Work/Learn Decisions Worksheet

Five Essential Types of Social Capital Worksheet

Five Aspects of Adolescent Development Worksheet