

EMERGENCY RESPONSE ON PORTS, PREPAREDNESS, AND WORKFORCE DEVELOPMENT

Emergency response is often the first thing that comes to mind when considering employment and training needs for disaster preparedness. Perhaps, given the broad scope of climate resilience, we should move beyond curriculum for first-responders, and imagine 21st-century emergency response in terms of a broader community answer — a community's adaptive capacity, as it were, in the face of multiple hazards. Many colleges are teaching and implementing disaster preparedness, as discussed earlier in reference to the FEMA and PETE programs. This is laudable and necessary. Colleges are also, however, responding to the emergencies of inequality and unemployment, the catastrophic preponderance of poor-quality jobs, and the multitude of low-skilled workers and underprepared learners who need to be brought up to speed in order to build and sustain a more resilient America.³⁶

The resiliency story at Florida's Hillsborough Community College (HCC) is not just about developing a robust, cross-program hazard response curriculum, but about engaging the community to do so. HCC serves more than 46,000 students on five campuses in Hillsborough County FL, which includes the Tampa metro. From employer engagement to regional adaptation planning, HCC is redefining its approach to workforce development, seeking new and resilient responses to a rapidly evolving labor market — and built environment.

HCC began thinking seriously about hazardous materials training after the 2010 Gulf oil spill. When the Deepwater Horizon dumped nearly five million barrels of crude oil into the Gulf of Mexico, stakeholders up and down the Florida coast scrambled to find workers and training programs suited to respond. Oil in the gulf was not on anyone's radar screen. Neither, really, was the vast storehouse of fuel sitting at Port Tampa Bay — a major international hub moving 34 million tons of cargo a year through a metro area of four million people.

HCC's vice president for workforce training engaged the Port Authority's vice president of planning in a conversation about disaster preparedness and first responders, starting with the firefighters who would need to contain any conflagration at the state's largest port. As a result, HCC built more extensive hazardous material training into all programs for emergency response professionals — emergency medical technicians, paramedics, firefighters, law enforcement. This was a significant effort, as the college specializes in education and training for health and public service occupations (36 percent and 29 percent of workforce enrollment, respectively).

One conversation led to more. An on-site company that recycles oil, for example, wanted to engineer a cleaner process for the industry. They called HCC and are working with the college to develop chemical engineering technician training — cutting edge clean economy work in a world not traditionally considered "green."³⁷ Another opportunity arose when Gulf Marine was looking for welders. HCC delivered training at the port, negotiated internships for students, and eventually doubled enrollment — with plans to launch an accelerated weekend program. The college expects further opportunities to open as the expansion of the Panama Canal drives even more shipping through the 5,000-acre Port Tampa Bay.

The challenge and the opportunity, says Dr. Ginger Clark, HCC's vice president for workforce training, is that there is no playbook.³⁸ Broad conversations about disaster preparedness, climate adaptation, worker advancement, and other elements of resilience begin organically. The specific shape and texture of ensuing plans are determined by the partnership. Community colleges, she argues, are uniquely suited to draw out such conversations and develop a framework for action.

To Clark, talking about resiliency entails something more than a conversation about job training: it is a fundamental inquiry into the kind of leadership colleges can provide to their communities. She explains that despite the presence of active civic organizations, no one in Tampa was connecting the dots between the city, the regional planning bodies, and the transit authorities. This was a job for HCC. Colleges can be excellent community facilitators. Indeed, Clark suggests, precisely because they are multi-dimensional institutions (training, modeling, convening,

resiliency initiatives, and determine their implications for job training. In Tampa, HCC began by mapping hazard mitigation and workforce demand in a single place-based asset: the port. Subsequent training opportunities arose because of that initial work developing job task analyses (JTAs) for environmental recovery and cleanup. But it also introduced a new challenge: a distributed workforce model. What does a training partnership look like if the port uses contractors for disaster preparedness and recovery planning? Door-to-door models for employer engagement

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One key task will be mapping the disaster preparedness biome for entrepreneurial problem-solvers — figuring out how to keep track of and align the many emerging

no longer work. The ecosystem of workforce professionals is changing, observes Clark, and they must adapt accordingly. Building resilience involves a new paradigm of community engagement in which colleges must reach beyond traditional chambers and business associations to city and county leadership, the coast guard, the port authority, and partners not yet imagined.

Education for resilience was never a matter of talking to a particular firm or group of firms about training a particular set of employees — resiliency by definition crosses sectors. In practice, this means building resiliency thinking, tools, and strategies into existing career pathways. Disaster preparedness and response involves more than hazmat training for emergency personnel; it includes cybersecurity, information technology, transportation, and remediation, among other things. HCC is determined not to repeat the mistakes of so many in the heady days of green investment, when colleges around the country bet the campus on a specific set of jobs. Instead, HCC is thinking about developing a resilient workforce more generally, in a nimble array of core programs that can respond to evolving demand. Community colleges can be community leaders, but they are also bound of course, by the imperatives of enrollment and completion. Which is another sound argument for integrating related proficiencies across existing curricula — building resiliency, once defined, into a 21st-century skill set — in a way that delivers value for both college and community. Otherwise, like innumerable sustainability initiatives, the push for resiliency will bang open doors and draw in multitudes — until personnel changes, champions move on, markets shift, and enrollment drops. Resiliency is not a boutique product, in theory or in practice.

To Clark, an emphasis on resilience returns community colleges to their core mission. At a time when many two-year colleges are moving toward a state college model by offering bachelors of applied science degrees, the questions of access and student success that are central to the conversation on resiliency and opportunity are in some cases driving community colleges back to first principles: student advancement, community service, inclusive

education. Where the University of Central Florida engages resilience in terms of engineering and research, for example, HCC translates it into community engagement — jobs, training, economic development.

Just as HCC worked with the planning council responsible for the region's resiliency and disaster recovery plan, the college is working with the port and the city to rethink business as usual. The task, Clark says, is to "first understand what resiliency is and what it requires of us, before we start training the workforce," and to "align college efforts with initiatives emerging from the community."

The college is well-suited to establish and convene knowledge-based community partnerships (where everyone learns what everyone does, and how they connect), and to then move partners collectively toward an integrated plan. The next phase is harder, and critical: "figuring out who is driving the train — who maintains, implements, and enforces a resiliency or adaptation plan." This must be determined at the community level. It is thus imperative that the vital interests of all members of the community are represented. And they all are, somewhere. But they are not yet all connected.

In the end, the partnerships matter more than the plan. It is there, Clark suggests, that sprawling metro areas can begin to build the ineffable but essential ingredient of resiliency: social cohesion.