

2012

EXECUTIVE SUMMARY

**GREENER**

**NEWWAY**

**JOB, SKILLS, AND EQUITY IN A CLEANER U.S. ECONOMY**

A REPORT BY

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COWS · BUILDING THE HIGH ROAD

## O BRAVE NEW GREEN

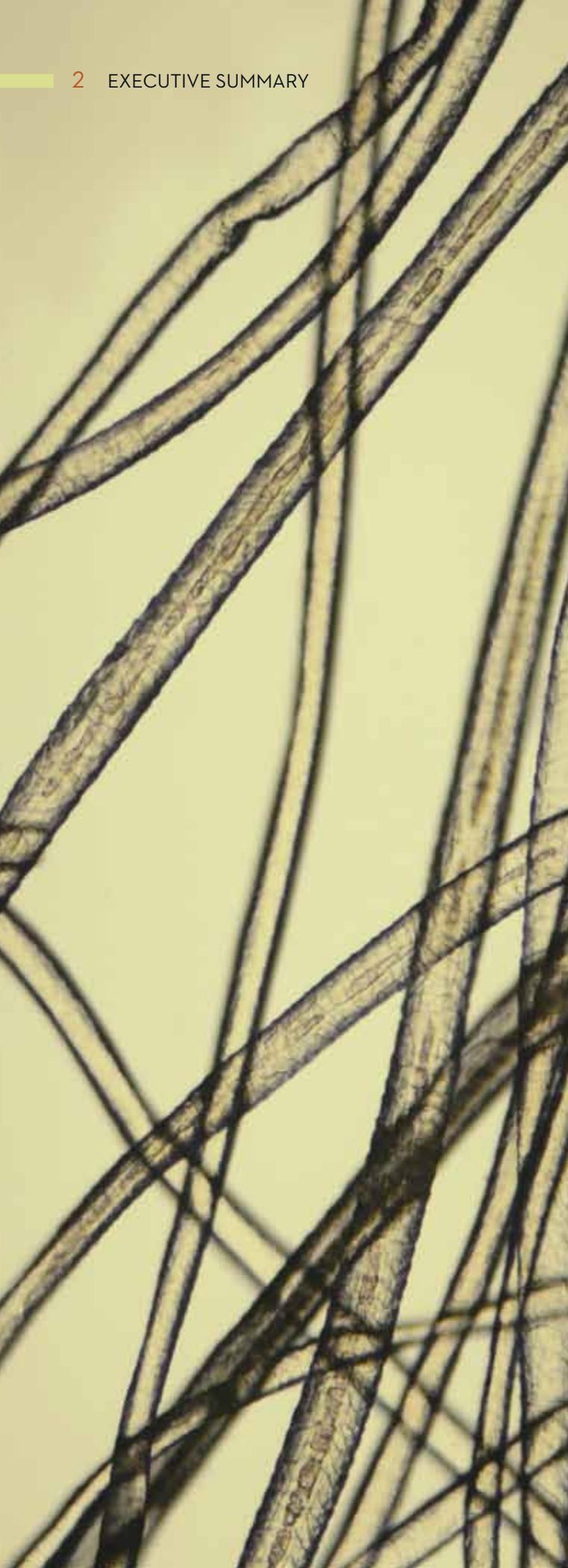
Human capital — workers' skill and knowledge and creativity — has always anchored our vision of the green economy. But as a darkening economic and political horizon circumscribes this country's exuberant green imaginings, plotting a course to our common future requires a new reckoning.

*Greener Pathways* (2008) and *Greener Skills* (2010) charted the intersection of workforce development and a greener economy. This report, *Greener Reality*, explores not only the practice and promise at the crossroads, but equally importantly the economic, natural, and political context which surrounds that intersection. All the work at the corner — diverse in structure and quality as it is — faces the challenges of that context, a reality increasingly defined by rising temperatures and inequality, and declining true democracy. Our efforts, and those of many other thinkers, advocates, practitioners, and policy-makers invested in building a greener economy, is surrounded and often swamped by the fierce forces at play in American politics.

So we continue to talk about meaningful and accessible credentials, but we cannot mention them without also thinking of the ways that austerity politics are making such real investments in human capital ever more unlikely. We assess education and training programs and their outcomes for workers, but find we cannot ignore the context of economic collapse that has left more than ten million workers out of jobs and many millions more toiling in dangerous, even illegal conditions. We celebrate the steady expansion of solar skills and solar panels across the nation, but worry that some will literally be underwater within thirty years. We are drawn in this report to take a broader view, critically situating the hard work of so many to connect American workers with greener skills and pathways.

Observing the serious challenges of this moment, when doubt clouds the promise of green jobs and austerity restricts our capacity to invest, we step back and take stock of the green workforce endeavor and the forces shaping it. It seems that everyone has their heads down in the weeds of project-building: technical colleges are chunking curricula; energy engineers are reducing cost per megawatt; cleantech advocates are trying to organize markets and ensure quality implementation of renewable energy and energy efficiency; workforce practitioners are trying to keep green shoots alive in communities overwhelmed by unemployment. And the public meanwhile, led by an increasing number of short-sighted ideologues, is souring on the very idea of "green jobs," and, by extension, the very investment needed to build the low-carbon economy that could produce them.





All of which means we should think less about how to structure pilot programs, and more about how to make all jobs, and all skill sets, greener. And how to do so through broad-based system-reform, making career pathways and industry partnerships business as usual, rather than special programs, by building them into basic state and federal policy structures, and institutional administration. And beyond that, we need to think about the role of human capital in a broader, more coherent, approach to greening community and economic development. This paper is an attempt to jump-start that conversation.

Our aim is not to defend green jobs. Our aim is to build and start to implement a rational policy framework for human capital development in a greening economy — one that helps ensure that low-income, under- and unemployed workers can advance into family-sustaining careers, while the communities in which they live improve resilience to climate insecurity. With this paper we hope to further the efforts of many to illuminate a “green” universe and the value propositions within it which — by advancing strategies for shared prosperity, low-wage worker advancement, and transparent, sustainable development — merit further attention.

It is precisely such strategies that place this report at the intersection of “green” skill formation and climate adaptation efforts. Building systems to improve opportunity can improve resilience. Beyond specific adaptive strategies like storm water management, improved transportation infrastructure, and quality public health systems, we know that a society’s capacity for adaptation is increased by broader strategies to promote equity and sustainability, including, for example, poverty reduction, more equitable resource allocation, higher skill development, and more efficient and accountable institutions. Greater adaptive capacity can mean increased resilience and decreased vulnerability for particular populations as for nations. In the U.S. as in the global South, then, constructing greener on-ramps to decent work for low-income, low-skill workers can improve the chances of those most vulnerable to the wide-ranging

dislocations (economic, geographic, health, etc.) driven by climate change.

*Adaptation* to global climate disruption, in the U.S. and around the world, will involve job creation and dissolution, as well as a concomitant shift in skills across the economy. And implicit in our cross-sectoral approach — premised on the idea that *all* jobs can and should be greener — is a commitment to exploring broad-based *mitigation* strategies: building a clean economy involves greener ways of working across the value chain in many industries, including but not limited to renewable energy and energy efficiency.

## BEYOND SKILLS: BUILDING RESILIENT SYSTEMS

Our earlier papers in this series, *Greener Pathways* and *Greener Skills*, suggested that the “green moment” of recent years opened a door to move and advance an equity and skills agenda, building an economy and polity that would better serve all those who have been routinely and staggeringly failed by our education and training systems, our fraying social contract, our 1 percent winners-take-all low-road economic policy. This paper continues that argument, but broadens it. Attending to the urgency of the current reality (from sequestered budgets to rising seas), it considers human capital in a larger context of climate change and democratization.

After years of writing about the nature of jobs and training in the clean energy economy, and the skill delivery system necessary to provide more equity in its development, we must now think more broadly and systematically about building resilient systems, capable of responding holistically to a new reality dominated by uncertainty — in climate change, in politics, in labor markets.

It is a fraught political moment characterized by a variety of shocks, both sudden and gradual, that add up to a war: on workers, on the poor, on all things “green,” and even,

in the end, on accountable democratic institutions. We look beneath this ferment at three current realities — economic inequality, climate disruption, democratic decline — and the opportunities for cooperation and creativity in their transformation.

Most of the world is moving, if still uncertainly, toward mitigation and adaptation to climate change. Both imply new technical/occupational human capital requirements, and would benefit from increased efficiency in their delivery and mastery. This report concerns what those needs are and how they might be most efficiently met. But address of our climate challenges will take place, and be both complicated and better enabled by, even broader changes in the structure of power in the world, and new possibilities for human flourishing. This too implies the need for new human capital, of a less technical kind but no less important. For both sorts of skills, for reasons explored below, greater rootedness in more democratic practice, of the sort also likely to require greater voice and fairness in the decision-making and distribution, is recommended. Where twentieth-century human capital theories saw equity being achieved through greater learning, the one proposed here sees needed learning best achieved through more democracy. Because in the end, we are impressed that the human capital synthesis celebrated twenty years ago, in which the solution to all equity problems was human capital, which business would underwrite for its promised gains to productivity, was probably wrong. Some substantial increase in real democracy and social equity is what will likely drive most of the human capital demand and the ability to underwrite its costs.

## HUMAN CAPITAL STRATEGIES: STORIES FROM THE FIELD

Human capital strategies are an essential part of any progressive response to climate disruption and inequality. They are, of course, utterly inadequate by themselves. Ensuring that poor and vulnerable workers have a fairer

## EMERGING STORYLINES

Workers that are trained for green skills embedded in a broader set of occupational skills are in much better shape than workers trained for a discrete set of green skills only.

We can't train our way out of a jobs crisis.

Labor matters: Unions improve worker advancement and business outcomes.

Employers matter: Training programs with robust employer relationships have been able to respond nimbly to shifting labor markets and to place workers in a tough economy.

Intermediaries can bring order to the chaos of the current system.

There is tremendous disillusionment within the workforce system — and some communities — about the promise of green jobs.

chance at securing the decent jobs that do exist is a worthy enterprise, particularly where shifts in climate and energy production amplify current labor market trends, increasing precarious employment and diminishing paths to advancement for lower-skilled workers. But this discussion would be incomplete without acknowledging the critical need for demand-side strategies, some of which we address in our policy recommendations. Indeed, the employment consequences of climate disruption will be determined everywhere by the policy response of individual governments (including but not limited to energy policy), whether or not these are driven by explicit strategies of mitigation and adaptation.

Whatever the uncertainties of demand, we believe that a more nimble and accessible system of education and training, ensuring greater equity in the mechanisms that govern the supply side of the labor market, is essential. And can be improved immediately. This paper points up those strategies we think move us closer to a greener future by restating the skills agenda laid out in previous papers in the broader context of a renewed social contract. To further refine that agenda, we drill down to a cluster of critical if familiar interventions necessary to align workers, industry, and training systems in and outside of clean energy sectors.

In these cases and in the stories of many others we talked to, several common storylines emerged:

**Workers that are trained for green skills embedded in a broader set of occupational skills are in much better shape than workers trained for a discrete set of green skills only.** We raised this warning flag in Greener Pathways. It's depressing to see how frequently it was ignored. Training for what O\*NET classifies as New and Emerging Occupations — energy auditors, weatherization installers, solar installers, and the like — was oversupplied relative to weak and unstable demand. With energy auditing in particular, we heard the same story over and over: money flowed into a region for

training in a field with few jobs for completers. Training that layers green skills on a foundation of more traditional skills gives workers more and better options in the labor market: the green skills may make them more attractive to employers, but if the market for the application of those skills is shaky they still have the foundational skills to work in a related occupation.

**We can't train our way out of a jobs crisis.**

Economics trumps training, even in programs imparting broader skill sets. Placements in building trades apprenticeships, for example, have been few and far between. We have long argued that the construction industry, the keystone for building energy efficiency, is an overlooked area with potentially decent jobs and clearly articulated training pathways organized on a classic earn and learn model — registered apprenticeship. Building relationships with community based organizations and improving access to and retention in the building trades for low-skill, low-income workers is a strategy that makes sense. But the beauty of the model is also its limit: it only works when there are jobs. With the exception of apprenticeship programs in the utility industry, which is one of few greening sectors that actually has jobs and is doing fairly sophisticated planning to develop and manage its pipeline of skilled workers, there has been little mobility in apprenticeship pathways. Despite many excellent efforts to build pre-apprenticeship programs and link them more effectively with joint registered apprenticeships, with so many experienced workers on the bench, JATCs are opening up application slots very selectively.

**Labor matters: Unions improve worker advancement and business outcomes.**

The career advancement potential of green credentialing in some sectors, like health care, is inextricably linked to the nature of union workplaces, where job positions, and career progression from one job to another, are embedded within a broader set of negotiations between labor and management. This is particularly important where “greener” positions are being developed at the lower end of the labor market, both because it clarifies pathways into those jobs, and

because it can assign measurable value to worker skill upgrades by documenting improved (i.e. greener) health, productivity, and energy outcomes.

**Employers matter: Training programs with robust employer relationships have been able to respond nimbly to shifting labor markets and to place workers in a tough economy.**

We have said many times that developing career pathways without linking them to related industry partnerships — which provide ongoing relationships with clusters of employers who can predict local demand and provide critical knowledge of a particular sector's skill needs — risks becoming an empty exercise in educational reform. In a languishing economy with so few job openings, it is more important than ever to engage employers, particularly in the green space. While such partnership-building takes a lot of time and a few resources, isolated attempts to contact individual employers is not enough. In the cases presented in this paper, and others we investigated, programs with strong business councils and mediated sector partnerships were most successful in reading local labor markets and connecting trainees with job opportunities.

**Intermediaries can bring order to the chaos of the current system.**

Our current workforce development systems are chaotic and confusing. Not only to workers who are trying to seek their way up to good skills and decent jobs, but also to employers seeking to navigate public resources for training and modernization. One reason labor unions and employers are so important to making projects work, is that they can serve a central organizing role in projects. Too many projects work with one or two employers. But both scale and meaningful training are more efficiently generated by bringing employers and unions together to identify their shared needs and build programs of training to answer those needs. Intermediaries — call them what you will, “industry partnerships,” “sector strategies,” or “workforce intermediaries” — help organize the employers and bring attention, and solutions, to industry issues. Workforce Investment Boards, community colleges, and other

regional institutions can act as conveners as well, but without a dedicated intermediary to organize the demand side, training projects are in danger of building bridges to nowhere.

**There is tremendous disillusionment within the workforce system – and some communities – about the promise of green jobs.** As we argue elsewhere in this report, the failure of “green jobs” is not a failure of “green” per se, but a consequence of myopic energy policy and economic disaster. Other reports in this series warned that the massive potential for job creation in a clean energy economy depended on significant industry expansion driven by specific federal policy and market signals, and argued for more focus on better skill delivery systems in general rather than more green training in particular. Hype, unfortunately, bested reason. And it is not entirely unreasonable for workers who trained for green jobs that never materialized to see in the experience yet another example of the U.S. education and training system, however well-intentioned, failing the poor and the working class. It is critical that we both **a)** improve systems serving students and workers at all skill levels, and **b)** decouple the jobs promise of the green economy (and its requisite political and material investment) from the limited employment outcomes of its recent trajectory.

## THINKING ABOUT POLICY, MOBILIZATION, AND THE FUTURE

As we have argued elsewhere, getting training and workforce development to work better in this nation is neither rocket science nor particularly green. There are three foundational elements that are critical to making the system work. The first is infrastructure to help organize the demand (employer) side of regional labor markets: sector strategies, industry partnerships, and labor market intermediaries are the necessary demand-side building blocks. Second, we need to encourage innovation in education and training systems in order to create a 21st-century skill delivery system that secures access to meaningful skills for students of all ages. Key innovations on the supply side of the labor market include the creation of career pathways and bridges (these often include earn and learn programs), and the stackable, industry-recognized credentials that benchmark progress in steps toward college degrees. Finally, work to build a more robust workforce development system requires improvement of outcomes and labor standards at the bottom of the labor market. Securing greater equity requires greater investment in social supports (from career counseling to child care) and the strengthening and enhancing of the floor under wages.

Such a system, in the context of a greening economy, might finally prioritize and achieve domestically what the U.S. Department of Labor and partners on the U.S. inter-agency group team originally proposed for the “social pillar” of the international platform under discussion at the UN Conference on Sustainable Development (Rio+20) in June 2012:

“Workers are able to share in the benefits of the transition to a greener economy, and that they are equipped with the skills necessary to implement such a transition;

The fundamental rights of workers are respected when implementing new policies and investing in new and emerging sectors, and that the health and safety of workers in these sectors is protected; and

Social safety nets are provided to help those dislocated by the shift to more environmentally sound consumption and production to prevent them from being impoverished and give them the resources to find new livelihoods. Consideration should be given to vulnerable populations and the particular risks they may face.”<sup>1</sup>

Looking forward, we encourage readers to consider some bigger ideas implied by our work. Within the context of a greening economy, the paper addresses a larger and increasingly heated “skills gap” conversation taking place in the U.S. and elsewhere. Alignment between supply and demand in the labor market

We pay particular attention to places where greening skill standards and credentials could create value for workers and businesses, helping to deliver both quality work and quality jobs; where green sector partnerships could more effectively link labor supply and demand, particularly in marginalized or vulnerable communities; and where bridge or pathway strategies provide the broadest access to skill upgrades (and related labor market advancement) for the broadest set of workers.

The report explores these interventions in the context of current political reality, defined in part by the purported bankruptcy of “green,” and describes related experiences in greener jobs training experiments across five sectors: Construction, Manufacturing, Utilities, Health, and Water.

**GREENER CONSTRUCTION:  
WEATHERIZATION AND ITS  
DISCONTENTS**

A review of residential energy efficiency efforts funded by the Recovery Act

**PROCESS VS. PRODUCT:  
GREENER MANUFACTURING**

Standardizing worker skills and material efficiencies in industrial practice

**GREENER TRANSMISSION:  
UTILITIES, GRIDS, AND CLEAN  
ENERGY TRAINING**

Workforce innovation from the electric power industry

**WATER, WATER, EVERYWHERE**

Unpacking a water sector partnership: industry, jobs, and training

**GREENER EQUITY:  
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A model for community-labor alliances in (re)constructing major American metros

**NOT NECESSARILY GREENER  
ON-RAMPS: BRIDGES TO  
MANUFACTURING CAREERS**

Bridging the chasm between adult basic education and occupational training

**GREENER HEALTH CARE:  
PARTNERSHIPS, CREDENTIALS,  
AND ADVANCEMENT**

A labor-management project to expand careers for environmental service workers

**GREENER STANDARDS**

A round-up of initiatives designed to rationalize skill delivery in energy efficiency industries

is an economic imperative. Ensuring access to relevant skill development for poor and vulnerable workers is a moral imperative — and a political one, if we are to have the right voices at the table to shape the sort of resilient democracy we’re imagining. But education and training (or, more broadly, transforming human capital systems) will never be enough. There are simply not enough good jobs. This project therefore attempts to shift the national conversation from questions of structural unemployment to those of structural inequality.

Finally, given what we know about the limitations of education and training systems in general, the specific successes and failures of “greening” programs around the country, and the larger imperatives of climate and equity, we call on our better natures to identify the key policies — and the key opportunities to advance them — that can move us toward a greener and more equitable economy. What are the areas of focus essential to addressing the “wickedly” intertwined problems of climate change and inequality, and how do they relate, ultimately, to human capital?

We do not offer a blueprint for action, but a framework of possibility: a platform upon which the policy and politics of a more generous and green America can be built. The three key principles of that platform are laid out in the conclusion:

VALUE NATURE

LEAD WITH EQUALITY AND RESPECT

BUILD DEMOCRACY, DON’T ASSUME IT



Work on each and all can, to some degree, begin anywhere and immediately. Most important, in contemplating that work, is to see their joint necessity and connection. We won’t get the first, or be able to manage it, without the second, and won’t get the second without the third. Sustainability, equity, and democracy can’t be easily separated.

For providers of education and training, taking all three seriously has implications for practice. Understanding and embracing those implications is part of the great work before us — as a community, a country, a planet.