

# DEVELOPING THE HEALTHCARE WORKFORCE

**Growing Need Is an  
Opportunity for Kentucky**

**January 2015**

## **Developing the Healthcare Workforce: Growing Need Is an Opportunity for Kentucky**

By Ashley Spalding

Kentucky Center for Economic Policy

January 2015

The Kentucky Center for Economic Policy is a non-partisan initiative that conducts research, analysis and education on important policy issues facing the Commonwealth. Launched in 2011, the Center is a project of the Mountain Association for Community Economic Development (MACED) and is a member of the Working Poor Families Project, a national initiative funded by the Annie E. Casey, Ford, Joyce and Kresge foundations that advances state policies in the areas of education and skills training for adults; economic development; and income and work supports. Visit KCEP's website at [www.kypolicy.org](http://www.kypolicy.org).

# DEVELOPING THE HEALTHCARE WORKFORCE

## Growing Need Is an Opportunity for Kentucky

The healthcare landscape is changing dramatically in ways that increase workforce needs. Greater numbers of people having access to healthcare through the Affordable Care Act (ACA) and an aging population are major drivers. In addition, other provisions of the ACA—such as cost-reduction imperatives and a focus on improved outcomes—are beginning to change how healthcare is delivered. These changes mean a big shift in healthcare workforce needs, including growth in healthcare jobs that require less than a bachelor's degree. Occupations and industries related to healthcare are projected to continue having the fastest job growth over the next decade.<sup>1</sup>

Given Kentucky's still-high unemployment rates—and large share (34 percent in 2012) of working families that are low-income—this should be seen as a welcome opportunity for the state.<sup>2</sup> The challenge is how to fill the growing need for healthcare workers and make the opportunities open to all Kentuckians. Twelve percent of adults ages 25 to 54 in Kentucky did not have a high school diploma or equivalent in 2012, and nearly 33 percent had only a high school degree or GED.<sup>3</sup> But Kentucky has experience creating ladders of opportunity for low-skilled workers through the career pathways efforts of the state's community college system—including in the healthcare sector. Additional efforts to develop and support the pipeline of healthcare workers in high-demand fields in Kentucky should be pursued in order to fill growing healthcare jobs and give more of the state's residents the opportunity to improve their lives.

## Healthcare Sector Job Growth

The healthcare sector in Kentucky—and in the U.S.—has been growing for years and continues to grow, in part due to the ACA and an aging population.

According to national employment projections by the Bureau of Labor Statistics (BLS)—which factor in ACA-related growth—nearly a third of the projected increase in jobs between 2012 and 2022 will be in the healthcare and social assistance sector. Healthcare support occupations (such as nursing aides, home health aides and medical assistants) are projected to grow 28 percent, and healthcare practitioners and technical occupations (including registered nurses, respiratory therapists, physicians and surgeons, medical and clinical laboratory technologists) 22 percent.<sup>4</sup> Personal care and service occupations (a category that includes personal and home care aides, which a Brookings Institution report discussed below categorizes as healthcare occupations) are projected to grow 21 percent. To put these numbers in context, total employment across all sectors is projected to increase just 10.8 percent.

BLS employment projections for Kentucky between 2010 and 2020—the latest available at the state level—show an increase of 25 percent (just over 13,300 jobs) for healthcare support occupations and 25 percent (just over 19,500 jobs) for healthcare practitioners and technical occupations.<sup>5</sup> Personal care and service occupations are also projected to grow 25 percent. The projected average rate of growth for all occupations during this time period is 12.4 percent.

Some of the expected growth in healthcare jobs is due to the ACA. It is estimated that about a third of growth in jobs for registered nurses (RNs), health practitioner support technicians, medical assistants, medical secretaries, diagnostic technicians, pharmacy technicians, pharmacists and emergency medical technicians/paramedics in national projections for 2020 is likely due to the ACA.<sup>6</sup> In Kentucky, the share of uninsured has already dropped from around 20 percent in 2013 to just about 12 percent—the second highest reduction in rate of uninsured in the country—and providers are seeing an increase in patients seeking care.<sup>7</sup> An analysis by the University of Louisville predicts that the state's expansion of Medicaid eligibility through the ACA alone will result in nearly 17,000 jobs by 2020, with an average annual salary around \$43,000 a year; this study did not detail which specific occupations would be growing jobs as a result of the Medicaid expansion.

The aging population is also leading to growth, particularly in certain occupations. In 2030, Kentucky is projected to have nearly 1.3 million people age 60 and over; in 2010, this subpopulation was 829,000.<sup>8</sup> This growth would mean the share of the total state population over the age of 60 would increase from 19 percent to 26 percent. Such growth can spur a need for long-term care providers such as home health aides, who provide basic healthcare (such as changing bandages, dressing wounds and applying topical medications) at a patient's home or in a care facility; they may also provide personal care such as bathing, dressing, and grooming a patient.<sup>9</sup>

### Kentucky's Primary Care Gap

Healthcare worker shortages already existed in Kentucky prior to the ACA. According to a report by Deloitte Consulting, in 2012 49 Kentucky counties were designated Health Professional Shortage Areas in primary care by the federal government, and parts of other counties also qualified.<sup>10</sup> Just to meet the existing demand at the time—before full ACA implementation—the state needed 5,635 additional RNs, which was 12 percent of the existing RN workforce; 688 licensed practical nurses (LPNs); and 1,638 mental health providers (see Figure 1). This is in addition to a serious shortfall in physicians—estimated to be 3,790 in 2012. Much of the existing shortages are in the rural counties and poor communities that most need jobs. The report focused on physicians and nurses and did not include data on shortages in pre-baccalaureate frontline healthcare occupations involved in primary care.<sup>11</sup>

Figure 1

KENTUCKY'S HEALTHCARE PROVIDER SHORTAGE			
Healthcare Provider	2012 Supply	2012 Need	2012 Need as Percentage of 2012 Supply
Physicians	10,475	3,790	36%
Dentists	1,711	612	36%
Advanced practice registered nurses	3,057	148	5%
Physician assistants	985	296	30%
Registered nurses	48,093	5,635	12%
Licensed practical nurses	11,770	688	6%
Nurse aides	43,619	No unmet need	0%
Optometrists	568	269	47%
Mental health providers	8,538	1,638	19%

Source: Deloitte Consulting, May 2013. "Mental health providers," as used here, includes: psychologists, licensed clinical social workers, licensed professional counselors, marriage and family therapists, and alcohol and drug counselors.

A new state law passed in the 2014 Kentucky General Assembly expands prescribing privileges for advanced practice nurses (such as nurse practitioners and midwives), providing some help in filling the primary care job gap. Prior to the legislation, these nurses could write prescriptions only if they had a collaborative prescribing agreement with a physician. The new law enables advanced practice nurses to prescribe most medications (excluding "scheduled drugs" such as opioid painkillers) independently if they have prescribed under a collaborative prescribing agreement for four years.<sup>12</sup>

### Growth in Pre-Baccalaureate Healthcare Occupations

While the physician and general primary care shortage is an important concern, "pre-baccalaureate healthcare occupations," in which most all workers have less than a bachelor's degree, are another important and fast-growing area of the healthcare sector. A recent report by the Brookings Institution indicates that the 10 largest pre-baccalaureate healthcare occupations now make up nearly half (49 percent) of the total healthcare workforce in the nation's 100 largest metropolitan areas.<sup>13</sup> These jobs are: health aides, nursing aides, personal care aides, LPNs, medical assistants, RNs, physical therapist assistants/aides, diagnostic medical sonographers, occupational therapy assistants/aides and dental hygienists.

Some changes in the provision of healthcare through the ACA are providing greater opportunities for pre-baccalaureate healthcare workers. In order to meet the ACA's "three part aim"—improving the healthcare experience for individuals, improving the health of populations, and lowering per capita costs—the existing healthcare delivery system and payment models are being reformed. There is an increasing emphasis on team-based and coordinated care focused on primary and preventive care, and a strong information technology infrastructure is a part of these models (for health records, among other purposes). In this context, pre-baccalaureate healthcare workers can take on more routine responsibilities such as screening, outreach and health education—while doctors and other clinicians focus on diagnosis and treatment of patients with more complex conditions.<sup>14</sup>

Looking at BLS employment projections, 17 occupations related to healthcare (excluding health related teaching jobs) are expected to be in the top 30 fastest growing occupations between 2012 and 2022—10 pre-baccalaureate jobs (see below) and seven that require at least a bachelor’s degree.<sup>15</sup> As a group, the 10 fastest-growing pre-baccalaureate healthcare related jobs make up 1.4 million (nine percent) of the 15.6 million jobs projected to be gained between 2012 and 2022.

Figure 2

PRE-BACCALAUREATE HEALTHCARE OCCUPATIONS AMONG THE PROJECTED 30 FASTEST GROWING OCCUPATIONS NATIONALLY 2012-2022		
Occupation	Projected Job Gain	Percent Change
Personal care aides	580,800	49%
Home health aides	424,200	49%
Diagnostic medical sonographers	27,000	46%
Occupational therapy assistants	42,600	43%
Physical therapist assistants	29,300	41%
Physical therapist aides	20,100	40%
Occupational therapy aides	3,000	36%
Medical secretaries	189,200	36%
Dental hygienists	64,200	33%
Substance abuse & behavioral disorder counselors	28,200	31%
Total	1,408,600	

Source: Bureau of Labor Statistics Employment Projections 2012-2022 Summary, Table 4.

Figure 3 below looks at these fast-growing pre-baccalaureate healthcare occupations in Kentucky—examining 2010-2020 projections (the most recent available for Kentucky) and including median salaries for these jobs in 2013. While the national and Kentucky projections for these selected pre-baccalaureate healthcare jobs do not line up exactly, all are clearly high-growth occupations—both nationally and in Kentucky.

Figure 3

SELECTED KENTUCKY PRE-BACCALAUREATE HEALTHCARE JOBS PROJECTIONS 2010-2020				
Occupation	# Jobs 2010	# Jobs 2020	Percent Change	Median Salary 2013
Personal care aides	19,240	24,140	25%	\$19,850
Home health aides	3,750	6,310	68%	\$21,570
Diagnostic medical sonographers	560	780	39%	\$57,230
Occupational therapy assistants	360	530	47%	\$56,950
Physical therapist assistants	1,380	1,970	43%	\$51,260
Physical therapist aides	720	980	36%	\$27,350
Occupational therapy aides	90	110	22%	\$36,190
Medical Secretaries	6,330	8,380	32%	\$28,700
Dental hygienists	1,690	2,280	35%	\$56,450
Substance abuse & behavioral disorder counselors	710	900	27%	\$37,060

Source: Kentucky Education and Workforce Development Cabinet, 2012; May 2013 State Occupational Employment and Wage Estimates Kentucky, Bureau of Labor Statistics.<sup>16</sup>

Though fast-growing, these occupations are projected to add a total of just 11,550 jobs in Kentucky over the 10-year period—4.5 percent of the projected growth of 235,430 jobs. Looking at projected job growth in 15 of the nation’s *largest* pre-baccalaureate healthcare occupations in Kentucky (as identified in the Brookings Institution report and as shown in Figure 4), however, provides a fuller picture.<sup>17</sup> These jobs are projected to increase by a total of 33,620—or 14.3 percent of the projected growth of jobs in Kentucky between 2010 and 2020.

Figure 4

PROJECTED GROWTH IN KENTUCKY PRE-BACCALAUREATE HEALTHCARE JOBS 2010-2020				
Occupation	# Jobs 2010	# Jobs 2020	Percent Change	Median Salary 2013
RNs	47,450	59,370	25%	\$57,520
Nursing, psychiatric & home health aides	30,380	38,070	25%	\$24,237
Personal care aides	19,240	24,140	25%	\$19,850
Licensed practical & licensed vocational nurses	9,840	11,890	21%	\$37,880
Medical assistants	7,700	9,990	30%	\$27,640
Emergency medical technicians & paramedics	4,560	5,790	27%	\$29,890
Dental assistants	4,010	5,130	28%	\$31,680
Medical records & health info. technicians	2,840	3,410	20%	\$33,280
Respiratory therapists	2,320	2,950	27%	\$46,140
Medical transcriptionists	1,750	1,840	5%	\$31,440
Dental hygienists	1,690	2,280	35%	\$56,450
Massage therapists	960	1,210	26%	\$34,130
Opticians, dispensing	690	860	25%	\$32,350
Pharmacy aides	590	690	17%	\$24,540
Radiation therapists	180	200	11%	\$76,850

Source: Kentucky Education and Workforce Development Cabinet, 2010; May 2013 State Occupational Employment and Wage Estimates Kentucky, Bureau of Labor Statistics.

Kentucky has been awarded a grant from the National Governor’s Association to develop a plan for addressing the state’s pending healthcare provider shortage. The state is considering a range of strategies, including career pathways.<sup>18</sup>

## Career Pathways

There are considerable challenges in developing the healthcare workforce to meet growing demand, but Kentucky’s past and existing career pathways efforts in the state’s community college system point to a promising framework. Career pathways can help fill the state’s workforce needs and also ensure that those with low skills and low levels of education—who are often also low-income—can access these job market opportunities.

Career pathways is a workforce development model that has gained popularity in recent years. The pathways are “a series of connected education and training programs and support services that enable individuals to secure employment within a specific industry or occupational sector, and to advance over time to successively higher levels of education and employment in that sector.”<sup>19</sup> The “path” starts with a low level of education and ends with a better-paying job—with various starts and stops along the way as a student earns a credential and may leave school to work for a while before heading back to school to continue on the pathway.

One framework for career pathways includes the following three features: 1) well-connected and transparent education, training support services and credentials within specific sectors or cross-sector occupations; 2) multiple entry points that enable well-prepared students as well as targeted populations with limited education, skills, English and work experiences to successfully enter the career pathway; and 3) multiple exit points at successively higher levels leading to self- or family-supporting employment and aligned with subsequent entry points.<sup>20</sup>

Higher education career pathways often include: bridge programs that assist students in transitioning from one level of education to another (i.e., from adult basic education to postsecondary education), or from earning a degree to entering the workforce; stackable credentials, meaning that as someone progresses on the pathway they earn a series of credentials that build on each other and make a person increasingly marketable for good jobs and eligible for higher and higher wages; a strong relationship between academic learning and local industries and job markets so students are gaining the necessary skills and credentials to attain and be well-prepared for a good job; and supports for students at every stage of the pathway. Portions of the pathway are often accelerated so that students beginning at very low levels of education do not lose momentum.

A good example of a career pathway in Kentucky is a project that occurred between 2007 and 2010 at Owensboro Community and Technical College (OCTC) in partnership with Owensboro Medical Health System through a “Jobs to Careers” grant from the Robert Wood Johnson Foundation, the Hitachi Foundation and Jobs for the Future. The project developed a healthcare career pathway to address an expected need for 500 nurses in the local area due to the building of a new hospital facility. The program recruited entry-level workers in any position at the hospital (including lab techs, nursing assistants, front desk staff in radiology, and housekeeping and dietary staff) to participate in an accelerated program to attain an associate’s degree and RN credentials. As designed, the program could enable participants to more than double their salaries in just two years.

The program was accelerated through the development of a series of hybrid courses, distance learning and video learning. Rather than taking more than two years to complete prerequisites and remedial work, plus an 18-month degree program, the full path—from academic remediation and prerequisites, through the RN associate’s degree—took under two years. The first credential earned was a nursing assistant certification; a nursing assistant advanced certificate could also be attained on the way to earning an RN degree. While students in this program were encouraged to complete the entire program without taking time off, students who left the program early would still have healthcare credentials that increased their marketability for jobs and could be built on in the future.

In addition to covering participants’ tuition costs, the program supported students in numerous ways. Among the supports were paid release time from work for studying (eight hours every two weeks), on-site access to advisors and instructors from the college, and most courses being held on-site at the hospital. A success coach also worked with students (one-on-one and as a cohort) to develop a clear vision of their goals, to guide them in connecting their daily activities to long term goals and to support them in building critical skills such as time management and study skills. In addition, program graduates had access to tutoring to prepare for licensing exams.



The results of this pilot program are impressive. Of 73 participants, 35 received their associate's degree in nursing from OCTC, and five transferred their OCTC credentials to a traditional nursing program outside of the Kentucky Community and Technical College System (KCTCS). Sixty-two were still employed in the medical field when data was collected a year later. OCTC did not officially continue its career pathway with the hospital after the grant, in part because the funding source had ended and also because the hospital began refocusing on planning and constructing its new facility.<sup>21</sup> However, the hospital has continued to partner with OCTC—funding faculty positions and equipment, as well as providing scholarship money and tuition reimbursement for hospital employees.

## Healthcare Career Pathways in Kentucky

Kentucky is often considered to be a leader in career pathways because it was among the first states to embrace this approach to education.<sup>22</sup> However, the community college system's initial grant implementation of a career pathways initiative in the early 2000s has evolved into the expectation that colleges and curriculum committees consistently take a career pathways approach to the development and implementation of curricula and programs. Additionally, several new career pathways efforts are also underway.

### Kentucky Community and Technical College System (KCTCS) Career Pathways Initiative

In 2002 KCTCS received a Ford Foundation grant to pilot a career pathways approach through its "Community College Bridges to Opportunity Initiative." This initiative was developed to better integrate developmental education, KCTCS's academic mission and workforce needs in order to promote academic and economic advancement for disadvantaged students. All of KCTCS's 16 colleges developed career pathway plans for a two-year period, and the community college system received additional funding from Ford in 2004 to support these pathways. KCTCS had at least 22 pathways—14 of them in Allied Health.<sup>23</sup>

Following the end of this grant, KCTCS did not have a source of funding to continue its career pathways in their existing forms and considered much of the work it was doing system-wide (i.e., building embedded certificates into curricula as steps along a longer associate's degree pathway) to be in line with career pathways. Career pathways at KCTCS then developed into a more general system-wide approach to community college education. For instance, KCTCS colleges seek to ensure that the degrees and credentials they offer have currency in local jobs markets. An example of this is that Jefferson Community and Technical College (JCTC) closed its Nuclear Medicine and Molecular Imaging Technology program a couple of years ago when there were no longer employment opportunities for graduates. Also, KCTCS degree and credential programs frequently offer incremental/stackable credentials on the way to earning a more substantial credential or degree.

### Accelerating Opportunity Kentucky (AOKY)

Kentucky was one of an initial four states selected to participate in the grant-funded Accelerating Opportunity program in 2012, a career pathway bridge program that helps students move quickly from adult education to earning a postsecondary credential with currency in the job market (for instance, in Industrial Maintenance, Allied Health/Nursing and Automotive Technology). Accelerating Opportunity is supported by a partnership of five of the nation's leading philanthropies, and Accelerating Opportunity Kentucky (AOKY) is a partnership among KCTCS, Kentucky Adult Education and the Kentucky Education and Workforce Development Cabinet. It started with eight KCTCS colleges in spring 2012 and expanded to all 16 in at the beginning of 2014.

Based on Washington state's very successful I-BEST program, AOKY students gain adult education competency through contextualized learning in their occupational field (i.e., healthcare) for which they receive college credit.<sup>24</sup> Courses are

co-taught by both technical instructors in the subject matter of their credential program and adult education instructors. Although the AOKY grant is wrapping up, KCTCS colleges are planning to continue a modified version of the program. Some changes in the program have to do with cost—for instance, team teaching is particularly expensive to sustain and is being reduced—while other changes are to make AOKY better suited for low-skilled students without a secondary credential.<sup>25</sup>

Allied Health/Nursing is the second most popular AOKY pathway (welding is the most popular) and is offered at 12 of KCTCS’s 16 colleges.<sup>26</sup> The specific Health/Nursing pathways at each college offering the pathway vary:

- Jefferson Community and Technical College (JCTC)’s AOKY Healthcare program is two semesters (14 credits) long. Students who complete the program earn a Basic Healthcare Foundation Certificate.<sup>27</sup> The program’s courses are: Introduction to Allied Health, Medical Terminology, Basic Skills I, Healthcare Delivery and Management, and Healthcare Communications.
- Southeast Kentucky Community and Technical College (Southeast Kentucky CTC)’s one-semester Allied Health program consists of a total of seven to eight credit hours and includes Nursing Assistant Skills I, Phlebotomy, Phlebotomy: Clinical Experience and Introduction for the Clinical Laboratory; students in this program earn both a Certified Nursing Assistant (CNA) credential and a Phlebotomy for the Healthcare Worker certificate.
- OCTC’s one-semester Allied Health Feeder Program includes nine credits of core healthcare classes (Medical Terminology, Introduction to Interpersonal Communication and Introduction to Computers), plus either a CNA credential (three credits) or a Phlebotomy for the Health Care Worker Certificate (five credits).

With the credentials earned through AOKY, students can gain entry-level healthcare jobs. However, they can also go on to earn related, stackable credentials—including associate’s degree programs in healthcare fields such as nursing, radiography or surgical technology—as seen in Figure 5 below. With an associate’s degree in nursing, a student can become an RN by taking a licensure exam. It is then possible for students with an associate’s degree in nursing to go on to enroll in a four-year program and earn a bachelor’s degree in nursing—and also potentially from there to earn a graduate degree and become an advanced practice registered nurse such as a nurse practitioner.

Figure 5

SELECTED HEALTHCARE PATHWAY JOBS AND CREDENTIALS		
Occupation	2013 Average Salary in KY	Credentials Needed
Nurse aide	\$23,290	CNA certificate (3 credit hour course at KCTCS)
Phlebotomist	\$27,230	Phlebotomy certificate (5-6 credit hour course at KCTCS) preferred
Registered nurse	\$57,520	Associate’s degree and RN license
Surgical technologists	\$38,150	Associate’s degree and certificate
Radiologic technologists	\$48,830	Associate’s degree and certificate
Nurse practitioner	\$89,170	RN license, 4-year nursing degree, graduate nursing degree

Source: May 2013 State Occupational Employment and Wage Estimates Kentucky, Bureau of Labor Statistics.

## Health Professional Pathways (H2P)

In 2011, JCTC and Ashland Community and Technical College (ACTC) received a three-year federal Health Professional Pathways (H2P) Department of Labor grant to support the training of healthcare workers—mainly those who are low-skilled or underprepared, displaced workers or incumbent healthcare workers. The participating colleges—which include seven colleges outside of Kentucky—are tasked with replicating a comprehensive model of best practices centered on a career pathways framework. The model includes eight basic strategies: 1) online assessments and learning; 2) contextualized developmental education courses (meaning developmental education skills are taught to students while they are receiving technical training in their field—i.e., healthcare); 3) competency-based core curriculum; 4) industry-recognized stackable credentials; 5) career guidance and retention support; 6) training programs for incumbent healthcare workers; 7) enhanced data and accountability systems; and 8) galvanizing a national movement to achieve a national consensus on credentials in the health professions. Participating colleges implement all eight strategies.

Through this grant, JCTC and ACTC developed a healthcare core curriculum that provides students with a skill set important for any worker entering the healthcare field. The idea is that students with either of these credentials are well prepared to move up the pathway toward a healthcare career. The curriculum was based on input from employers as well as faculty and includes two certificates—basic and intermediate.

JCTC has developed embedded certificates within many healthcare degree programs. For instance, the medical assisting degree program contains five stackable certificates: a Medical Assisting Diploma, Medical Office Administrative Assistant Certificate, Medical Office Clinical Assistant Certificate, Medical Office Insurance Billing and Coding Certificate, and Medical Receptionist Certificate. The health information technology degree program includes a Medical Record Coding Specialist Certificate, and the respiratory care degree includes an Electrocardiographic and Cardiac Monitoring Technician Certificate.

Also, JCTC and ACTC have put in place developmental math classes in which nursing faculty work with math faculty so that all math exercises and activities are in the context of the healthcare environment. In terms of supports, there is a student success coach that helps link students to resources; the program encourages students to access a virtual career network through which they can explore healthcare careers; and JCTC is expanding faculty supports across the entire college to provide training on how to do more effective, hands-on advising.<sup>28</sup>

## Moving Forward

There are many issues to consider as Kentucky works to develop and implement a health workforce action plan to address growing healthcare workforce needs. While much of the public conversation is around shortages of doctors and advanced practice nurses, pre-baccalaureate healthcare workers play an increasingly important role in the provision of healthcare in our state. Below are some thoughts on how the pipeline of pre-baccalaureate healthcare workers might be better supported moving forward.

### Recommitment to Career Pathways

While KCTCS continues to put into practice some of the elements of career pathways—in particular, embedding stackable credentials and certifications into associate degree programs and the AOKY basic skills bridge—an explicit recommitment to the multiple components of career pathways could better help to develop Kentucky’s healthcare workforce. When the

Ford Foundation-funded career pathways initiative was still operating at KCTCS, data analysis showed that career pathways students consistently had better retention rates from one academic year to the next, compared to the entire KCTCS student body.<sup>29</sup>

The Alliance for Quality Career Pathways—in which Kentucky participates—recommends that a state career pathways system commit to a shared vision and strategy and engage in visible and consistent messaging to show support for and promote the career pathway approach and system.<sup>30</sup> The Alliance also emphasizes the importance of measuring career pathway participant progress and success through data collection and analysis, which is only possible with formalized career pathways.

The policy and program changes needed as part of such a recommitment—which might focus on healthcare career pathways to start—could include allocating funding, providing supports, and data collection and analysis, as discussed below, among others.

### **Funding**

A key reason why the multiple components of KCTCS's initial career pathways efforts have not been sustained is a lack of funding. Career pathways require a significant amount of investment—for instance, for student supports.<sup>31</sup> In addition to not having dedicated state funding for career pathways, which is a source of funding for some of Washington's career pathways efforts, for instance, Kentucky's public postsecondary institutions—including the state's community college system—have been experiencing state budget cuts.<sup>32</sup> In order for KCTCS to undertake a recommitment to career pathways, dedicated funding from the state would likely be necessary.

### **Supports**

Student supports are a critical component of successful career pathways—particularly those that target students who are academically underprepared, as Kentucky's career pathways efforts typically have. Students need to have access to a range of supports—including tutoring and intensive advising, as well as child care and transportation assistance—to aid them in completing credentials and degrees so they are able to move along the pathway to higher paying jobs.<sup>33</sup> In the KCTCS career pathways efforts specific and often intensive career pathways supports, such as tutoring and coaching for participants, have been available during the grant periods that are not available after the grants expire. While KCTCS does provide supports to all students, supports specifically targeted to healthcare career pathways students—as well as those in other fields—may be needed. Low-income adult community college students often need supports in addition to—and/or different from—those that are available in order to be successful; for instance, intensive case management.<sup>34</sup>

### **Data**

Data collection and analysis is another important part of effective career pathways because it enables the measuring of outcomes.<sup>35</sup> In the past, as part of the Ford Foundation-funded effort, KCTCS colleges tracked career pathways students with a “flag,” a code that assigns students to a specialized group. KCTCS now has a data sharing agreement with the Kentucky Cabinet for Workforce Development that the community college system is using to analyze employment and wage outcomes for KCTCS students and graduates. If it made a formal recommitment to career pathways, KCTCS could track job placement for participants. Such data collection and analysis would enable KCTCS to know how well career pathways programs were working so the community college system could make needed changes. Data collection and analysis can also be important to securing funding for career pathways.

## Other Important Aspects of the Healthcare Worker Pipeline

### State Healthcare Workforce Plan

Career pathways should play an important role in a state healthcare workforce plan. While the career pathways approach is being considered by the state as a strategy for developing Kentucky's healthcare workforce, it is unclear at this point if it will play a particularly prominent role.<sup>36</sup>

Kentucky also needs to base its health workforce strategies on accurate data, but the current data collection and reporting system for health professions is not as accurate as it needs to be. For instance, health profession licensure boards currently collect some data, but there is no standardization among them, and the data is not routinely collected from licensure boards for analysis of trends and projections. Improving data collection and analysis of health workforce data in Kentucky is receiving a great deal of emphasis in the state's health workforce action planning process, and is an important part of effective healthcare career pathways.<sup>37</sup> Unlike the Deloitte report, which focused primarily on doctors and nurses, such data collection and reporting would need to include the full range of healthcare workers—for instance, not leaving out pre-baccalaureate healthcare workers.

### Financial Aid

The decreasing affordability of higher education in Kentucky can be a barrier for many potential healthcare workers.<sup>38</sup> While state financial aid is currently seriously underfunded, as more funds become available the creation of additional financial aid opportunities targeted to Kentuckians training for high-demand pre-baccalaureate healthcare jobs—for instance, those involved in health sector career pathways—could further support the healthcare workforce pipeline. In a recent survey of healthcare educators across Kentucky by the Council on Postsecondary Education, there was agreement among all respondents that the state should explore such financial assistance programs, including forgivable loan programs for those students who agree to provide healthcare services in the state for a set period of time.<sup>39</sup>

### Wages and Additional Supports

Many of the pre-baccalaureate healthcare jobs discussed here do not pay very high wages, as seen in Figures 3, 4 and 5—and the majority of job growth in pre-baccalaureate healthcare jobs is in occupations with lower salaries. Across the 10 largest pre-baccalaureate occupations highlighted in the Brookings Institution report, 28 percent of these workers live in families with incomes below 200 percent of the federal poverty level.<sup>40</sup> Several occupations have especially high shares of workers with incomes below 200 percent of the federal poverty level: personal care aides, nursing aides and medical assistants. In fact, 19 percent of personal care aides and 14 percent of nursing aides live in families with incomes below the official poverty level.<sup>41</sup> Pre-baccalaureate RNs are the only one of the 10 occupations that experienced growth in median earnings between 2000 and 2009-2011.

While it is the nature of career pathways for students to start out with entry-level credentials and corresponding low salaries, it is not practical for everyone on a healthcare career pathway to eventually complete an RN or other healthcare credential that can provide a higher-paying job. The need for workers with these credentials is more limited than the need for home health and personal care aides, for instance.

It is important that pay for these more entry-level healthcare jobs grows in order to better compensate those who do this demanding and important work. Recent federal legislation newly applies minimum wage and overtime protections to direct care workers (such as health aides and personal care aides) who work for home care agencies and other third parties, which

are basic protections already provided to most U.S. workers.<sup>42</sup> The legislation, which went into effect January 1, 2015, is an important move estimated to affect nearly two million direct care workers. Home care workers had been exempted from the pay rules for nearly 40 years because their services were considered “companionship,” although many of these workers did much more, like assisting with daily activities such as dressing and eating. Fifteen states had already extended minimum wage and overtime protections to direct care workers, and six more states mandated minimum wage pay; Kentucky was not among them.

Raising Kentucky’s minimum wage would further benefit some lower-paid workers in pre-baccalaureate positions. Proposed legislation to raise the state minimum wage to \$10.10 did not pass the 2014 General Assembly, although the issue is being taken up again this year. And a metro government ordinance to increase the minimum wage in Louisville/Jefferson County to \$9.00 over the next two and a half years recently passed—the first such local law in the South.<sup>43</sup> In addition, a state Earned Income Tax Credit (EITC) could further support low-income pre-baccalaureate healthcare workers.<sup>44</sup> Additional supports for child care would also help compensate those who work at low-wage healthcare jobs—such as the expansion of the state’s Child Care Assistance Program (CCAP), which is in the process of getting back to 2013 funding levels prior to state budget cuts.

## Conclusion

The current healthcare worker shortage and expected growth in healthcare jobs in upcoming years will be a challenge but it is also a great opportunity for Kentucky. Career pathways can help develop the healthcare workforce while also making it possible for low-skilled, low-income Kentuckians to have the opportunity to fill these jobs—and should play a central role in a state health workforce action plan. Kentucky has a lot of experience with career pathways on which to build, including in healthcare fields. Other complementary strategies to develop and support the pre-baccalaureate healthcare job pipeline should also be pursued.



## Endnotes

- <sup>1</sup> Bureau of Labor Statistics, “Employment Projections—2012-2022,” News Release, December 19, 2013, <http://www.bls.gov/news.release/pdf/ecopro.pdf>.
- <sup>2</sup> 152,230 of Kentucky’s working families were low-income in 2012. Low-income here is defined as below 200 percent of the federal poverty level. 2012 American Community Survey microdata.
- <sup>3</sup> Source: Population Reference Bureau, analysis of 2012 American Community Survey.
- <sup>4</sup> Bureau of Labor Statistics, “Employment Projections—2012-2022.”
- <sup>5</sup> Kentucky Education and Workforce Development Cabinet, “Kentucky Occupational Outlook to 2020,” July 2012, <https://kylmi.ky.gov/admin/gsipub/htmlarea/uploads/Outlook.pdf>.
- <sup>6</sup> Bianca Frogner and Joanne Spetz, “Affordable Care Act of 2010: Creating Job Opportunities for Racially and Ethnically Diverse Populations,” Joint Center for Political and Economic Studies, October 2013, <http://jointcenter.org/sites/default/files/Affordable%20Care%20Act%20of%202010.pdf>.
- <sup>7</sup> Dan Witters, “Arkansas, Kentucky Report Sharpest Drops in Uninsured Rate,” Gallup, August 5, 2014, <http://www.gallup.com/poll/174290/arkansas-kentucky-report-sharpest-drops-uninsured-rate.aspx>.
- <sup>8</sup> Kentucky State Data Center, Population Projections, Population by Sex and Age, <http://ksdc.louisville.edu/index.php/kentucky-demographic-data/projections>.
- <sup>9</sup> L. Harris-Kojetin, M. Sengupta, E. Park-Lee and R. Valverde, “Long-term Care Services in the United States: 2013 Overview,” National Center for Health Statistics, 2013, [http://www.cdc.gov/nchs/data/nsltcp/long\\_term\\_care\\_services\\_2013.pdf](http://www.cdc.gov/nchs/data/nsltcp/long_term_care_services_2013.pdf).
- <sup>10</sup> This designation counts “All non-Federal doctors of medicine (M.D.) and doctors of osteopathy (D.O.) providing direct patient care who practice principally in one of the four primary care specialties — general or family practice, general internal medicine, pediatrics, and obstetrics and gynecology.” Health Resources and Services Administration, “Primary Medical Care HPSA Designation Criteria,” <http://bhpr.hrsa.gov/shortage/hpsas/designationcriteria/primarycarehpsacriteria.html>.
- <sup>11</sup> Alcohol and drug counselors—which fall under the broader category of mental health providers (most of which require more than a four-year degree) and are pre-baccalaureate jobs—were included in the Deloitte report.
- <sup>12</sup> Senate Bill 7, 2014, <http://www.lrc.ky.gov/record/14RS/SB7.htm>.
- <sup>13</sup> Martha Ross, Nicole Prchal Svajlenka and Jane Williams, “Part of the Solution: Pre-Baccalaureate Healthcare Workers in a Time of Health System Change,” Brookings Institution, July 2014, <http://www.brookings.edu/research/interactives/2014/healthcare-workers#/M10420>.
- <sup>14</sup> Ross et al., “Part of the Solution.”
- <sup>15</sup> Instead of 17, the Bureau of Labor Statistics says 14 of the 30 fastest growing occupations are in healthcare. They do not include personal care aides, substance abuse counselors and medical secretaries in their calculation. The seven healthcare occupations among the nation’s 30 fastest growing occupations (2012-2022) that require at least a bachelor’s degree are: genetic counselors, physicians’ assistants, physical therapists, orthotists and prosthetists, nurse practitioners, audiologists, and therapists. Bureau of Labor Statistics, “Employment Projections: 2012-2022 Summary,” Table 4, December 19, 2013, <http://www.bls.gov/news.release/ecopro.nr0.htm>.
- <sup>16</sup> Bureau of Labor Statistics, “May 2013 State Occupational Employment and Wage Estimates Kentucky,” [http://www.bls.gov/oes/current/oes\\_ky.htm#31-0000](http://www.bls.gov/oes/current/oes_ky.htm#31-0000).
- <sup>17</sup> The 15 pre-baccalaureate healthcare occupations included here are among the 20 largest pre-baccalaureate healthcare occupations identified by the Brookings Institute report for which there is KY data in Kentucky Education and Workforce Development Cabinet, “Kentucky Occupational Outlook to 2020.”
- <sup>18</sup> Health Workforce Policy Academy In-State Meeting, “Building a Transformed Health Care Workforce: Moving from Planning to Implementation,” December 2, 2014.
- <sup>19</sup> Davis Jenkins, “Career Pathways: Aligning Public Resources to Support Individual and Regional Economic Advancement in the Knowledge Economy,” Workforce Strategy Center, August 2006.
- <sup>20</sup> CLASP, “Shared Vision, Strong Systems: The Alliance for Quality Career Pathways Framework Version 1.0.” June 2014, <http://www.clasp.org/issues/postsecondary/pages/aqcp-framework-version-1-0>.
- <sup>21</sup> The facility is 780,000 square-feet and serves an 11-county area.
- <sup>22</sup> Rosanna Perry Stephens, “Charting a Path: An Exploration of the Statewide Career Pathway Efforts in Arkansas, Kentucky, Oregon, Washington and Wisconsin,” Seattle Jobs Initiative, May 2009, [http://www.workingpoorfamilies.org/pdfs/Career\\_Pathways\\_Report.pdf](http://www.workingpoorfamilies.org/pdfs/Career_Pathways_Report.pdf).
- <sup>23</sup> Shauna King-Simms, “The Kentucky Bridges to Opportunity: Career Pathways Initiative,” presentation at the Career Pathways Institute, Spokane, WA, June 18, 2007, [http://www.sbctc.ctc.edu/college/education/career\\_pathways\\_kings\\_simms\\_june07.pdf](http://www.sbctc.ctc.edu/college/education/career_pathways_kings_simms_june07.pdf).
- <sup>24</sup> Ashley Spalding, “Crossing the Finish Line: Overcoming Barriers to Community College Degree and Credential Completion,” Kentucky Center for Economic Policy, November 26, 2012, <http://kypolicy.org/crossing-finish-line-overcoming-barriers-community-college-degree-credential-attainment-kentucky-2/>.
- <sup>25</sup> For instance, in the new version of AOKY, teach teaching is reduced to a minimum of one technical course at 25 percent.
- <sup>26</sup> Ashland, Big Sandy, Hazard, Henderson, Jefferson, Madisonville, Jefferson, Maysville, Owensboro, Somerset, Southeast and West Kentucky Community and Technical Colleges.
- <sup>27</sup> This certificate program is also part of the Health Professional Pathways (H2P) program discussed in the following section.
- <sup>28</sup> When the H2P grant ends in August, most of the aspects of the career pathways will be sustained—although not the success coaches.

- <sup>29</sup> Stephens, “Charting a Path.”
- <sup>30</sup> CLASP, “Shared Vision, Strong Systems.”
- <sup>31</sup> Stephens, “Charting a Path.”
- <sup>32</sup> Stephens, “Charting a Path.” Ashley Spalding, “New Budget Will Worsen Kentucky’s College Affordability Problem,” April 3, 2014, <http://kypolicy.org/new-budget-will-worsen-kentuckys-college-affordability-problem/>.
- <sup>33</sup> CLASP, “Shared Vision, Strong Systems.”
- <sup>34</sup> Spalding, “Crossing the Finish Line.”
- <sup>35</sup> Stephens, “Charting a Path.”
- <sup>36</sup> Health Workforce Policy Academy In-State Meeting.
- <sup>37</sup> Health Workforce Policy Academy In-State Meeting.
- <sup>38</sup> Ashley Spalding, “College Affordability in Kentucky,” Testimony at Budget Review Subcommittee on Postsecondary Education Meeting, November 17, 2014, <http://kypolicy.org/testimony-college-affordability-kentucky/>.
- <sup>39</sup> These state financial aid opportunities would be in addition to existing federal loan repayment options. Kentucky Council on Postsecondary Education, forthcoming paper on healthcare provider education/training in Kentucky.
- <sup>40</sup> Ross et al., “Part of the Solution.”
- <sup>41</sup> Ross et al., “Part of the Solution.”
- <sup>42</sup> United States Department of Labor, “Minimum Wage, Overtime Protections Extended to Direct Care Workers by US Labor Department,” News Release, September 17, 2013, <http://www.dol.gov/opa/media/press/whd/WHD20131922.htm>.
- <sup>43</sup> Jason Bailey, “Who Stands to Benefit from Louisville’s New Minimum Wage,” January 5, 2015, <http://kypolicy.org/stands-benefit-louisvilles-new-minimum-wage/>.
- <sup>44</sup> Ashley Spalding, “Two Pillars of Making Work Pay: Minimum Wage Increase and a State Earned Income Tax Credit,” Kentucky Center for Economic Policy, September 3, 2014, <http://kypolicy.org/two-pillars-making-work-pay-minimum-wage-increase-state-earned-income-tax-credit/>.