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Introduction in **Pathways to Careers in Health Care**

Christopher T. King

University of Texas at Austin

Philip Young P. Hong

Loyola University Chicago

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Christopher T. King
Philip Young P. Hong
Editors

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W.E. Upjohn Institute for Employment Research
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1
Introduction

An Overview of the Health Profession Opportunity Grants Program

Christopher T. King
University of Texas at Austin

Philip Young P. Hong
Loyola University Chicago

The Patient Protection and Affordable Care Act passed by Congress and signed into law by President Barack Obama in 2010 effected major changes in the financing and delivery of health care in the United States. It also authorized creation of the Health Profession Opportunity Grants program (HPOG), a demonstration effort within the U.S. Department of Health and Human Services to provide opportunities for education and training that lead to jobs and career advancement in health care for recipients of Temporary Assistance for Needy Families (TANF) and other low-income individuals and to respond to the increasing demand for health care professionals. As a demonstration program, HPOG also featured a mandated federal evaluation to assess its success and a corresponding research program—the HPOG University Partnership Research Grants (HPOG UP), a collaborative effort between the program operators and academic researchers from different disciplines—to observe various aspects of its operations.

HPOG unites two important innovations in workforce development programming for serving low-income populations in recent decades, career pathways and sector strategies, by actively fostering the use of the former in the context of one major sector—health care. Health care is one of the only sectors that continued to exhibit growth year after year in periods of general economic expansion as well as decline. Health care employment even continued to expand in most states and communities

across the United States through the Great Recession in 2008–2009. In addition to offering insights into these strategies and their evolution, the authors in this book present the findings, lessons, and recommendations that emanated from HPOG research and evaluations for consideration by policymakers, program operators, and other researchers.

SECTOR AND CAREER PATHWAY STRATEGIES: THE LARGER FRAME OF REFERENCE

As Christopher King and Heath Prince explain in Chapter 2, career pathways and sector-based strategies have come of age in the past few years. Sector strategies grew slowly from "one-off" efforts intended to rationalize and improve workforce development programmatic relationships with employers and postsecondary institutions in the 1980s and 1990s, often instituted separately, to become more widespread practices throughout much of the workforce system by the 2010s, even before the evidence base was there to fully support their claims to effectiveness. Now these strategies are firmly ensconced in U.S. workforce development policy.

Per Conway et al. (2007), sector-based workforce strategies target specific industries or clusters of occupations, intervene through credible organizations, support workers competing for quality job opportunities, address employer needs and industry competitiveness, and create lasting change in labor market systems helping both workers and employers. They aim to improve the economic situation of workers through increased employment, wages, benefits, and earnings over time, while also seeking to improve employers' access to workers with the necessary skills, to increase business productivity, and to boost regional competitiveness. Sector strategies act as *integrators* of wider regional economic and workforce development activities. They were pioneered starting in the 1980s by the Bay State Skills Corporation (now the Commonwealth Corporation) in Massachusetts and 1990s by the Wisconsin Regional Training Partnership and Project QUEST in San Antonio, and they expanded in the 1990s and 2000s with considerable support from foundations (such as the Annie E. Casey Foundation and the Charles Stewart Mott Foundation), as well as state and federal governmental partners.

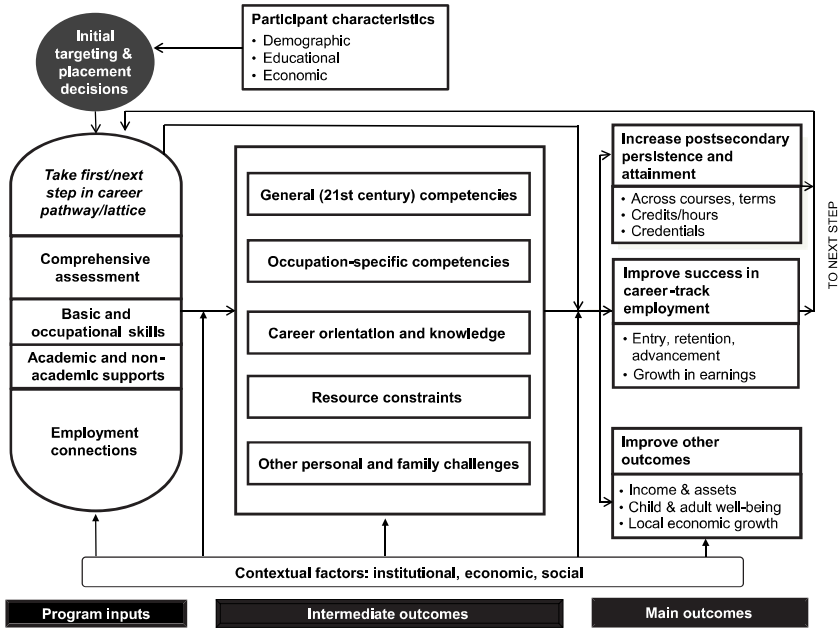
Sector strategies represented a decided departure from more traditional approaches to job development within the workforce field. Too often, local workforce programs focused almost exclusively on the supply side of the market, offering job search assistance, job skills training, and other services, and then preparing job seekers to secure jobs with employers that their staff had cultivated at some point near the end of their program participation. This came to be seen as overly focused on the job seeker and too limited in terms of real employer engagement. Job development and placement efforts tended to be scattershot, untargeted, and disconnected from employers' real skill needs in the workplace.

By contrast, sector-based workforce strategies began from workplace skills that employers within growth sectors of the labor market need—sectors that were often targeted by these strategies included advanced manufacturing, information technology, hospitality, and logistics and transportation, as well as health care, although health care has almost always been on these lists at the state and local levels.

As sector strategies spread over time, they evolved to incorporate what are now referred to as *career pathway strategies*, which are of two main types.[1] The first type, wholly situated within postsecondary institutions, is organized around an articulated set of courses that lets individuals learn skills and earn postsecondary credentials for specific occupations, such as nursing and allied health careers. These pathways identify key entry and exit points that allow individuals to reach a certain point in their pathways; leave for a period of work in the labor market, if necessary; and subsequently return to pursue further training, with earned credits that "stack" toward completion of a particular diploma or degree (e.g., an associate's degree in nursing). The second type is more employer based, identifying occupations that appear to have the career pathways already built in and focusing more on preparing individuals for them based on completion of courses leading to industry-recognized certificates. Today's career pathway and sectoral strategies, while distinct, are integrated approaches to workforce development in a growing number of communities.

It may be useful to articulate more clearly how these policies are expected to operate and, importantly, what outcomes they aim to produce in labor markets for job seekers. Figure 1.1—taken from David Fein's (2012) insightful working paper on career pathways as a frame-

Figure 1.1 Theory of Change for Career Pathways



SOURCE: Fein (2012).

work—attempts to capture these in relatively simplified form. Given the emphasis sector strategies place on the employer role, it is important to note that these strategies are also intended to produce positive outcomes for employers, such as reduced employee turnover, increased productivity, and profitability.

Sector and career pathway strategies have now been largely codified in U.S. workforce policy as part of the Workforce Innovation and Opportunity Act (WIOA) of 2014, but, as King and Prince indicate in their chapter, based in part on recent research and local case studies they conducted for the Annie E. Casey Foundation, challenges remain in implementing, sustaining, and scaling. Among these are scarcity of resources, limitations of program requirements and funding silos, competing state and local priorities, varying emphases of community and technical colleges, relevance to employer needs, poor participant

supports, and various implementation barriers. The contributors to this volume address many of these challenges in the context of the health care sector.

King and Prince conclude with observations and recommendations for policymakers, followed by a brief update on the emerging evidence on the effectiveness of these strategies, which is generally strong across industry sectors—including health care—in terms of impacts on program persistence and completion and labor market outcomes of interest.

HPOG, HPOG UP, AND OPRE'S RESEARCH AGENDA

In Chapter 3, Hilary Bruck, Amelia Popham, and Kim Stupica-Dobbs provide a detailed description of the HPOG program, focusing particularly on its first round of grants (referred to here as HPOG 1.0) and its origins and goals, as well as the associated HPOG UP research and evaluation programs. They also situate the program in the larger context of the Office of Planning, Research, and Evaluation's (OPRE) extensive research agenda, which is guided by five principles: rigor, relevance, transparency, independence, and ethics.

HPOG 1.0 programs are explicitly based on a health care career pathways framework in postsecondary education, which posits that instruction should be organized as a series of manageable and well-articulated steps, accompanied by strong supports and connections to employment. HPOG builds on OPRE's nine-site Pathways for Advancing Careers and Education initiative that was introduced by the Administration for Children and Families several years earlier in 2007. That project is the subject of a separate, rigorous longitudinal evaluation.

The HPOG 1.0 research and evaluation portfolio contains eight projects, each driven by its own research questions. This volume features chapters addressing two of these projects, notably the HPOG National Implementation Evaluation (NIE) and Tribal HPOG Evaluations and the HPOG UP Grants.

Bruck and her coauthors conclude with a discussion of program and research plans for the future and offer a series of reflections and lessons learned.

FINDINGS FROM HPOG'S NATIONAL IMPLEMENTATION AND TRIBAL EVALUATIONS

Although we do not have HPOG program impact results yet, we can learn from two major process and outcome evaluations of the program. In Chapter 4, Alan Werner, Pamela Loprest, and Robin Koralek provide an overview and findings from HPOG's NIE for OPRE. The NIE focused on the 27 nontribal HPOG 1.0 grantees that received five-year grants in 2010. The evaluation was organized around three major research questions: 1) How were the programs implemented? 2) What changes in service delivery systems were associated with their implementation? 3) What outcomes occurred for individual participants?

The NIE addressed these research questions in three related studies, respectively: the Descriptive Implementation Study, the Systems Study, and the Outcome Study. Werner and his coauthors summarize the findings of the Descriptive Implementation and Outcome Studies. Among other things, they find the following about HPOG 1.0:

- Programs served more than 36,000 individuals—mainly unmarried minority women with children—engaging mostly in health care occupational training. Approximately 30 percent of participants were in school and 41 percent were working when they enrolled in the program.
- By 36 months after enrollment, most (78 percent) participants who began training had completed at least one health care course of training, spending an average of 3.5 months in training.
- At 15 months after enrollment, most (73 percent) participants were employed, more than half of them in health care jobs. As with other sector-based programs, those employed worked full-time on average; those employed in health care earned higher hourly wages and enjoyed better employment benefits than those working in other sectors.
- Participant employment and earnings increased through 12 quarters after exit, with steeper increases in earlier quarters. Completers and noncompleters experienced these increases, but employment and earnings were notably higher for completers.

While these are solid results—in line with findings from other sector and career pathway evaluations—they are *outcomes*, not net *impacts*. For the full story on HPOG's impacts, we have to wait for the interim three-year and longer-term six-year impact estimates that are slated to become available in 2019 and 2021, respectively.

In Chapter 5, Michael Meit et al. address the second of the HPOG evaluations, the HPOG Tribal Evaluation, addressing the American Indian/Alaska Native (AI/AN) communities. They focus on the five Tribal HPOG 1.0 grants awarded to tribal organizations and tribal colleges:

1) Blackfeet Community College in Browning, Montana
2) Cankdeska Cikana Community College in Fort Totten, North Dakota
3) College of Menominee Nation in Green Bay, Wisconsin
4) Cook Inlet Tribal Council in Anchorage, Alaska
5) Turtle Mountain Community College in Belcourt, North Dakota

The evaluation examines the structures, processes, and outcomes based on three key research questions, respectively: 1) What frameworks and relationships did the Tribal HPOG grantees create to implement training and service delivery? 2) How were training and support services delivered? 3) What outcomes did participants achieve, and was health care workforce capacity enhanced in tribal communities?

Their analysis of the HPOG Performance Reporting System data and qualitative interview data for the five tribal grantees finds the following:

- Structures were put in place to strike a good balance between managing the academic programs and support services to meet the needs of AI/AN students and to produce program success.
- Processes were enacted to streamline recruitment through informal word of mouth, screening for eligibility and academic readiness, and ongoing student engagement from orientation throughout participation in Tribal HPOG to allow smooth implementation.
- Outcomes for the tribal programs included enrollment of a total of 2,270 students—mainly unmarried AI/AN women with chil-

dren—mostly in training for the occupational category of nursing assistant, aide, orderly, and attendant, followed by licensed practical and vocational nurses. Approximately 20 percent of participants were employed in a non-health-care field and 15 percent in the health care field at the time of enrollment in the program.

- By 36 months after enrollment, nearly half (48 percent) of the students who began training had completed at least one health care course of training, and fewer than one-fifth (18 percent) exited without completing the training.
- At five years after enrollment, most (65.3 percent) students completed one or more health care training programs. Among students who completed and exited the program, most (69 percent) were employed at the time of exit. Among those who found employment at exit, most (85 percent) were employed in health care. Of those who were working in the health care field at the time of enrollment, 39 percent experienced a wage increase during program participation.

Meit et al. conclude by reporting qualitative data for various stakeholders—students, staff, and employers—on their general satisfaction with the Tribal HPOG program. Many students appreciated the Tribal HPOG program for its financial and culturally competent support services that made it possible for them to persist through to the finish line. There was a marked improvement in soft skills among the students. Staff were impressed with the impact not just on students but also on their kids and other older family members. Lastly, employers found it helpful to hire Tribal HPOG students who know and respect the history of AI/AN people. This benefits employers as providers connect with AI/AN patients and communities at large.

ENGAGING EMPLOYERS IN HEALTH CARE CAREER PATHWAY PROGRAMS

One of the longer-running themes in workforce development policies and programs is the need to engage employers more fully and in

meaningful ways. This issue has been addressed in myriad ways over the years with varying degrees of success through such diverse efforts as mandating that employers play a major/majority role in program governance, offering substantial subsidies for employers providing on-the-job training, and more recently requiring governors to implement sectoral strategies statewide in their WIOA programming. In Chapter 6, Janet Boguslaw, Jessica Santos, and Trinidad Tellez examine ways New Hampshire health care employers and other key stakeholders might improve the training, hiring, retention, and advancement opportunities of racial, ethnic, and linguistic minorities entering or seeking to advance in health professions through the New Hampshire Health Profession Opportunity Project (HPOP). This is an important subtopic of the employer engagement issue.

HPOP trained 1,051 low-income individuals to pursue health care occupations, of whom 80 percent completed training in health care and 74 percent attained employment, with 88 percent of those employed finding positions in health care. One of HPOP's key foci was on workforce diversity; the program successfully engaged 28 percent of students from racial, ethnic, and language minority populations. This was in response to the increasing diversity of the New Hampshire workforce, even as minorities face institutionally based challenges in hiring, retention, or advancement in careers despite their own efforts and motivation.

By conducting in-depth qualitative interviews, literature reviews, local data analysis, and the engagement of employers and other stakeholders, this study focuses on the following research questions related to racial, ethnic, and linguistic minorities in New Hampshire: 1) How can state health care employers create a more diverse workforce and foster greater recruitment, retention, and advancement? 2) How can the workforce development field better prepare and support both workers and employers in the health care sector to improve minority hiring, retention, and advancement along career pathways in the state? 3) What opportunity structures or bridges need to be developed or leveraged to build and sustain a more diverse and upwardly mobile minority health care workforce in New Hampshire?

Based on in-depth interviews with a wide range of New Hampshire health care employers—hospitals, long-term care facilities, home health care agencies, community health centers, mental health centers,

and dental services across HPOP's four geographic areas—and with industry association leaders, job developers, incumbent health care workers, and community leaders, as well as with incumbent health care employees across a range of positions, the authors find that health care workers of color face a range of institutional, relational, and organizational barriers to career advancement:

- Discrimination against diverse populations in health care is embedded in institutional structures and deep-rooted in the absence of formal organizational commitment to and understanding of the value of workforce diversity across professional positions and variations in leadership. This creates unequal opportunity for racial, ethnic, and linguistic minorities.
- Informal labor networks function to restrict access to new opportunities for entry and advancement for health care professionals of color, limiting inclusion and equity. This subtler form of network-based structural exclusion is perpetuated by informal internal labor markets within firms.
- Employers at the level of director or unit manager are skeptical about the need to hire for a diverse workforce with the greater benefit of improving community wealth, patient outcomes, or business performance. They tend to understand and make decisions that impact diversity in the context of their perceived bottom line.

Boguslaw and her coauthors suggest that these structural issues together contribute to a new way of thinking about policies and practices that improve the entry, retention, and advancement of diverse populations in health care positions. Employer engagement is critical to developing career pathways that advance health professionals of color, and that workforce development programs will move forward with greater success when tied to the related agendas of improving health care performance and reducing area health disparities. They suggest a framework for culturally effective health care organizations by investing in seven core elements: 1) leadership, 2) policies and procedures, 3) data collection and analysis, 4) community engagement, 5) language and communication access, 6) staff cultural competence, and 7) workforce diversity and inclusion. They maintain that this combined approach

will generate improved quality of care, safety, and patient satisfaction; reduced health disparities; and increased revenue.

Another set of issues garnering greater attention in workforce and education programming in recent years as career pathways strategies have matured involves the provision of appropriate supports to participating students to assist them in successfully navigating the less than hospitable landscape of these publicly funded programs from enrollment and participation through to completion (certification and degree attainment) and labor market success. Several groups of HPOG UP researchers and their program partners addressed quite different aspects of the supports issue.

CULTURAL COMPETENCY IN RURAL, TRIBAL HEALTH CARE CAREER PROGRAMS

Cultural competency is an issue seldom addressed explicitly in workforce and education programs in the United States, nor is it typically articulated in the context of requisite program supports. Yet, in more rural and tribal areas of the country, cultural competency among providers and provider institutions is likely to play a larger role in students having successful program experiences and outcomes.

Loretta Heuer of North Dakota State University led a team that included President Cynthia Lindquist of Cankdeska Cikana Community College, Marilyn Klug of the University of North Dakota, and Mary Leff of North Dakota State University, in partnership with Cankdeska Cikana Community College's HPOG program, Next Steps. The project goals were to engage in service research projects to develop practices for supporting the recruitment and retention of American Indian people into professional nursing programs in North Dakota, and to explore ways to encourage interest in health careers among American Indian youth.

This research team presents in Chapter 7 six interdisciplinary projects, as well as numerous nursing recruitment/retention projects led by the North Dakota team. For each of the projects the research team tracked key outcome measures and reported their progress based on set

goals. In general, the desired outcomes were achieved at the project level. Key accomplishments included the following:

- To encourage American Indian students' interest in health careers, a series of educational opportunities were initiated and evaluated. Pre- and posttests, course evaluations, and focus groups were used to assess the culturally competent curriculum content and student engagement. Findings demonstrated an overall student satisfaction and appreciation for the opportunity to be introduced to the health care industry through HPOG.
- More than 500 students completed the Youth Education & Employment Survey, with a response rate of 64 percent. The data provided a comprehensive look at American Indian students as a whole in terms of their aspirations and perceived self-sufficiency in relation to future career goals. Many students indicated motivation to study and work in the health care field.
- Four annual conferences were put together for state nursing educators and employers to create a forum for generating ideas and strategies for improving the recruitment, retention, and employment of American Indian students in the nursing profession.
- Multiple video projects highlighted the lived experiences of participating student nurses and mentors to identify promising practices used by Next Steps to support student success. Excerpts were used to develop video materials for recruitment and retention of American Indians in Nursing.
- An oral history project, *Voices of American Indians in Nursing*, was also completed, with 14 nurses representing multiple generations and career choices in a documentary, *Essence of Healing: Journey of American Indian Nurses*.

Heuer and her coauthors provide a general reflection of what is important in working on projects with the tribal nations. They recommend academic researchers have cultural competency in connecting with the tribal communities—basic knowledge and respect for the differing worldviews, values, and beliefs. They also mention some key cultural foundations to understand: American Indian traditional values focus on the group by taking care of people, focusing on the present, and respecting elders' knowledge and wisdom.

ROLE OF SOCIAL SUPPORTS IN A HEALTH INFORMATION CAREER PATHWAY PROGRAM

Over time, workforce and education programs have come to recognize the importance of social supports for effective program participation, completion, and, ultimately, successful outcomes. They have devoted an increasing amount of attention to the design and provision of social supports in addition to the content of their program offerings.[2] These supports take varying forms, including the provision of child care and transportation assistance, academic and career coaching or navigation, financial counseling and assistance, peer supports and network development as part of social capital.[3] When the Affordable Care Act authorized the HPOG program in 2010, it explicitly stated that "instruction should be organized as a series of manageable and well-articulated steps, *accompanied by strong supports and connections to employment*" (emphasis added).

The authors of Chapter 8, Cheryl Hyde and Karin Eyrich-Garg, engaged with the Health Information Professions (HIP) program as their training program partner in their HPOG UP research. HIP was coordinated and primarily staffed by the Center for Social Policy and Community Development at Temple University, with additional program partners including District 1199C, the Philadelphia Workforce Investment Board, the Department of Public Welfare, Philadelphia Workforce Development, and area health care/medical industries. HIP operated as a five-tier training program in various aspects of health information management. Using a participant-centered approach, HIP offered employment training, as well as career coaching, child care and transportation assistance, interviewing techniques, and guidance with job placement and internship.

Hyde and Eyrich-Garg examine the social supports of low-income HIP program participants—their social support networks and primary group memberships—in order to understand their impact. Specifically, they explore the extent of participants' social support and whether their participation in the training program bolstered this assistance. Their research focused solely on Tier 1 participants, those enrolling in the lowest tier, Medical Office and Accounts/Electronic Health Records training. The primary Tier 1 target population was TANF recipients,

though the program expanded its pool to include individuals at or below 250 percent of the federal poverty line.

Based on a combination of in-depth interviews with participants (N = 141) at four points in time—program intake, program exit, six months postexit, and one year postexit—as well as eight program alumni focus groups (N = 72), and extended interviews with HIP program staff, the researchers found that the primary group memberships—the most popular of which was religious in nature—were largely homogeneous in terms of race, gender and education. Their social support networks were small and expanded only a little throughout the program. Participants relied heavily on friends for social assistance but most did not include training staff in their six-month post-exit networks. They also found little evidence that the participants created bridging or linking social capital, although they did belong to more professional/business associations and Internet groups, mainly medical coding and health professions.

Hyde and Eyrich-Garg suggest that programs need to understand that networking is not just a key strategy in finding employment but also a skill that needs to be learned and honed for subsequent advancement. Rather than just encouraging participants to network, program staff need to develop networks and then assist participants in accessing them. In addition to developing participants' human capital, training programs also need to facilitate their social capital development, specifically the kind that links network-poor individuals with opportunity pathways.

A FAMILY-CENTRIC APPROACH TO HEALTH CARE CAREER PATHWAYS

Sector and career pathway strategies tend to be more focused on and driven by the needs of employers in their particular sectors and stress the demand side of the labor market more than traditional workforce development programs have done over time. Where they engage with providers and specific target populations, they generally are concerned with addressing the education and training needs of individual participants so that they can obtain the necessary skills, degrees, and/or

certifications required to secure positions in these sectors and progressively advance in them.

Chapter 9 by Teresa Eckrich Sommer, Patricia Lindsay Chase-Lansdale, Terri Sabol, and Christopher King describes Career*Advance*®, a career pathway program in Tulsa's health care sector that is unique in targeting the parents of children participating in Head Start, Early Head Start, and Oklahoma early education programs and serving them with a structured array of evidence-based services, which are intentionally coordinated for parents and children. It remains the only sector-based career pathway program under study that offers human capital services to children and parents simultaneously.

The Community Action Project of Tulsa County (CAP Tulsa) began enrolling parents in Career*Advance*® in 2009 and soon expanded its scale and scope in 2010, when it received the first of two HPOG grants. Program services include quality early childhood education, sector-based career training, stackable credentials, coaching and peer supports, and incentives and other financial supports (e.g., transportation assistance, child care vouchers). It is a much more intensive, family-centered approach to services organized around an early childhood education platform, in this case one of the best in the nation, as rigorous longitudinal evaluations have clearly shown.

Initial quasi-experimental evaluation findings for Career*Advance*® from the research partnership with CAP Tulsa under the HPOG UP program (as well as additional support from the W.K. Kellogg Foundation and the Foundation for Child Development) include the following results:

- Sixty-two percent of enrollees achieved at least one health care certification in one year versus just 3 percent of matched comparison group members, a rate well above that for all community college students nationally after six years.
- Though enrollees did not increase their overall employment rate versus comparison group members, at 52 percent, they enjoyed a 23-point gain in health care employment.
- They did not experience increased earnings after a year but also did not report higher levels of material hardship, possibly because the program's financial supports more than offset their lost income during participation.

- Parents in the program also reported higher levels of commitment to work, greater self-efficacy, and higher levels of optimism compared to their comparison group peers, without any significant increase in perceived stress, psychological or other, after one year.
- Participants' children increased their attendance by three points over the year and reduced their rates of chronic absence, results that may foreshadow future impacts for these children.

The research team's implementation research, featuring site visits, participant interviews, and participant and staff focus groups, yielded several themes. Operationalizing a two-generation mission within a sector-based program faces many challenges, among them basic skills and English-language levels for parents. In addition, parents require intensive support services, including coaching, peer supports, financial supports, coordinated parent/child schedules and others, although from the research, it is not possible to determine the effect of any single component on their success. Deeper relationships with employers via workforce intermediaries (e.g., Tulsa WorkAdvance) can help match the needs of employers and adults needing employment in a given sector in part through better sequencing of school and work activities. In addition, programs like Career*Advance*® necessarily rely on sustained mutually beneficial partnerships that need considerable care and feeding over time to become and remain effective. The future direction of the program after HPOG 2.0 support ends in 2020 is yet to be determined, but current research shows that a two-generation approach within a health care sector-based career pathway program is feasible.

PSYCHOLOGICAL SUPPORTS AS HUMAN CAPITAL INVESTMENTS IN HEALTH CARE CAREER PATHWAYS

As discussed, workforce and education supports can take many different forms. Child care and transportation assistance may be among the most common, with coaching, career navigation, and social capital recently receiving increasing attention. Another form that has not been

accorded much recognition, and certainly has not been funded to any significant degree, is psychological supports.

Philip Hong, Timothy O'Brien, Terri Pigott, Jang Ho Park, Brian Holland, and Rana Hong examine the role of human capital investments in the form of psychological supports in health care career pathways programs offered at two prominent area health care centers. The Southland Health Care Forum in Chicago Heights offered medical assistant, certified medical assistant, and licensed practical nurse track training coupled with robust psychological supports provided by program staff, including the program manager, program specialists and coordinators, instructors, and job developers. Gateway Technical College in Kenosha, Wisconsin, also built strong psychological supports into the intensive coaching model provided by HPOG program specialists to strengthen participation in and success with a wide range of health care career opportunities, including community pharmacy technician, dental assistant, health information technology, health unit coordinator, medical assistant, medical billing clerk, medical transcription, nursing, nursing assistant, physical therapist assistant, radiography, and surgical technology.

In Chapter 10, evidence of psychological self-sufficiency (PSS) is presented by demonstrating positive change over time as an empowerment process of switching from barriers to hope. This PSS process contributes to the economic self-sufficiency (ESS) outcome. Its HPOG UP research partner, Loyola University of Chicago Center for Research on Self-Sufficiency, evaluated empowerment-based workforce development processes during participation in training and education—the extent to which PSS affects ESS—as they relate to employment placement and retention outcomes for HPOG students.

HPOG participants filled out Loyola's surveys at the start, middle, and end of the program/employment, as well as at six-month follow-up. Survey instruments included questions on basic demographics, employment-related intrapersonal and noncognitive skills, employment hope, and perceived barriers to employment. Rigorous statistical analyses were conducted to develop the PSS measure, consolidating discrete variables into testable domains by validating both the employment hope and perceived employment barrier scales. Further, the research team explored the performance of one of the derived domains—employment

hope—as an intermediate variable to examine the process-to-outcome relationship.

A total of 834 (92 percent) participating HPOG students at the partner sites were surveyed. Seventy-three percent filled out the second survey, and 70 percent the third survey. Twenty-six percent filled out the fourth survey. Based on analyses of the survey and qualitative focus group data, Hong et al. found the following:

- About 70 percent reported having increased their employment hope, while 57 percent reported having decreased their perceived employment barriers.
- PSS increases between Time 1 and 2 and stays the same at Time 3, and then drops at Time 4. ESS generally increases over time, paralleling the PSS growth pattern and dipping along with PSS at Time 4.
- PSS scores increased at a higher rate during Times 1–3 for those participants who received career counseling and job search services compared to those who did not. The drop in PSS score was statistically significant for those who did not receive this service.
- PSS scores were higher at Time 3 for those who were employed at exit compared to those who were not. PSS scores remained much higher at Time 4 for those who were employed at exit. And PSS scores for those who were working at Time 4 were much higher at Time 1 and 4 compared to those who were not working at Time 4.
- Participants who maintained higher PSS levels also were more likely to complete the HPOG program; the group that completed the HPOG program had a much higher PSS score at Time 4 compared to those who did not complete the program.
- Structural equation modeling analysis of the PSS theoretical model indicated that PSS significantly contributes to ESS and that increases in PSS lead to growth in ESS outcomes.
- Qualitative findings suggest the importance of the relational aspect of HPOG program delivery that helps bring together the disconnected system, resources, direction, and motivation. Psychological supports by HPOG staff helped remove participants' fear and anxiety about continuing in the program. These rela-

tionships provide the comfort, confidence, and conviction necessary to increase and sustain PSS during program participation.

Hong et al. suggest that workforce development practitioners apply the PSS theory and focus on clients' growth and maintenance of PSS when working closely with participants toward achieving their ESS outcomes. Investing in psychological capital in the form of PSS as a human capital development strategy could be translated into providing self-sponsored retention support during job readiness training before participants enter the labor market. Further, Transforming Impossible into Possible (TIP®), an innovative evidence-based intervention developed during the project, can help invigorate the internal strengths necessary to keep moving participants toward their ESS goals.

BOOK ORGANIZATION AND THEMES

Following this introductory chapter, the first major section of the book, Chapters 2–5, delves into broader issues and national-level findings regarding HPOG 1.0, while the second section, Chapters 6–10, offers insights from the five HPOG UP researcher/program collaborations that are more topical and area specific. Chapter 11, the final chapter, offers concluding observations and policy recommendations.

Broad themes about HPOG 1.0 explored here, all of which are addressed more fully in the topical and concluding chapters, include:

- **Who is being served?** HPOG 1.0 programs, as intended, have served large shares of TANF and other low-income populations, most of whom are women of color, many of them parents. Participants have not always been the hardest of the hard to serve, but most have had education and other barriers to participation.
- **How are they being served***?* Also, as intended, the programs have offered participants a wide range of social and psychological supports, while connecting them to an array of education and training services and employers for at least their initial job in health care. Supports provided have included tuition assistance, child care, case management, peer supports, and help with strengthening psychological capital for job readiness, employ-

ment, retention, and advancement—that is, self-esteem, self-efficacy, and psychological self-sufficiency.

- **What have been the near-term outcomes of the programs?** Participants have generally succeeded in securing credentials and obtaining jobs in health care at high rates in the near term after completing programs. Unfortunately, fewer participants—about one-fifth in programs nationally and one-tenth from tribal programs—have gone on to reach the next step on their career pathway by obtaining a second credential.

Notes

1. Jenkins (2006) published a clear exposition of career pathways in the context of the knowledge sector.
2. Among other efforts worth noting along these lines are the Institute for Women's Poverty Research's *Student Parent Success Initiative* (https://iwpr.org/issue/special-websites/student-parent-success-initiative/); Sarah Goldrick-Rabb's work on postsecondary education at Temple University and earlier as founder of the Wisconsin HOPE Lab (http://saragoldrickrab.com/research/); and Mario Luis Small's work at Harvard on the role of social capital in varying contexts (https://scholar.harvard.edu/mariosmall).
3. Career navigators found their way into mainstream program contexts like workforce and postsecondary education based on their success serving disabled populations as part of national efforts such as the Disability Program Navigator Initiative of the U.S. Department of Labor from 2003 to 2010. See the online disability employment resource site for America's Job Centers at www.disability.workforcegps.org.

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