Pathways to Careers in Health Care

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Psychological Self-Sufficiency

An Empowerment-Based Theory for Workforce Training and Adult Education

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This chapter focuses on low-income workers and their job-seeking efforts in health professions during an economic downturn, when the health care sector experienced labor shortages or was in high demand for quality workers. Prior research on workforce development has been overly outcome driven and has given relatively less attention to the process of building psychological strength as one reaches the economic self-sufficiency (ESS) outcome (Harvey, P. Hong, and Kwaza 2010; P. Hong 2013). Little is known about what psychological prerequisites are needed to achieve desired economic outcomes when life risks and resilience counterbalance the path to success.

To fill this gap in the literature and in the mainstream workforce development practice, we partnered with two Health Profession Opportunity Grants (HPOG) grantees—Gateway Technical College in Kenosha, Wisconsin, and Southland Health Care Forum in Chicago Heights, Illinois—to generate evidence on low-income students' empowerment and transformative career pathways to becoming health professionals.

This research could serve as the basis for developing improved workforce development strategies for HPOG programs and other employment programs for low-income individuals and families.

The project examined the extent to which psychological self-sufficiency (PSS)—activation of one's internal psychological strength against her perception of the barriers to achieving career goals—affects one's employment placement and ESS outcome in the health professions (P. Hong 2013; P. Hong, Choi, and Key 2018). The guiding research question is, how is HPOG participants' PSS associated with their economic success? The four-year study collected and analyzed survey responses from participants in the two HPOG program sites that use a career pathway model. This project obtained site-specific contextual survey data to evaluate the empowerment-based workforce development models in the health professions by highlighting the process element of internal strength as it relates to HPOG outcomes. It merged this survey data with the national Performance Reporting System (PRS) administrative data to promote cross-project learning. Multimethod analyses of the data contributed to theory building in workforce development for low-income individuals.

MUTUALLY BENEFICIAL PARTNERSHIP

This section describes the HPOG partner characteristics and the emergence of a mutually beneficial partnership. Problems addressed by HPOG program partners and the problems proposed to be studied by Loyola University Chicago as the evaluation partner converged as the main focus of collaboration. The HPOG program aimed to provide low-income individuals with education, training, and support services that prepare them to enter and advance in the health care positions that provide good pay, experience labor shortages, and are in high demand. HPOG had five goals:

1) target skills and competencies demanded by the health care industry;
2) support career pathways (including articulated career ladders);
3) result in employer- or industry-recognized certificates or degrees;

4) combine support services with education and training services to help participants overcome barriers to employment, as necessary; and
5) provide training services at times and locations that were easily accessible to targeted populations (Anderson et al. 2014, p. 3).

The HPOG partners addressed two main problems:

1) Underpreparedness for the academic rigors of postsecondary education is becoming increasingly acute. High dropout rates, low test scores, and poor academic performance lead to low retention and completion.
2) Hospitals, home health care providers, community clinics, assisted living facilities, and insurance companies report problems with health care personnel recruitment and retention. Loyola, as the university partner, located perceived employment barriers and employment hope as the common missing link and the source of the problems identified by HPOG partners. Therefore, Loyola's research aimed to provide evidence for developing new approaches to address social service needs among low-income job seekers receiving employment services and training through HPOG. This knowledge base could serve as the foundation for adding to the empowerment tradition in workforce development.

HPOG Program Partner 1: Southland Health Care Forum

Southland Health Care Forum (Southland) provides allied health care occupational training for Temporary Assistance for Needy Families (TANF), low-income, at-risk, limited-English-speaking individuals, and disadvantaged adults (18 years and older), leading to employment in high-paying, high-demand health care careers. An HPOG project titled "Pathways to Health Care Occupations" was awarded to address the problem of critical shortages of health care workers—medical assistant (MA), certified nurse assistant (CNA), licensed practical nurse (LPN), and phlebotomist technician) in Cook and Will Counties in Illinois. There were over 1,200 vacancies in nursing, allied medical, laboratory, and medical office occupations in Chicago Southland hos-

pitals, clinics, long-term care facilities, physicians' practices, dialysis centers, and diagnostic laboratories.

Since 2003, Southland has developed and delivered health care training programs that react to changing staffing needs and provide solutions to staffing shortages. It used an empowerment-based workforce development model to arm HPOG students with the inner power and belief that they can complete the program, obtain certification, and advance in their chosen profession. Southland offered a strong career pathway system to receive state certification, 120-hour internships, and job placement in the health care sector. To increase the numbers of qualified MAs and LPNs, Southland offered to meet high-demand health care occupational needs in the region in seven ways:

1) Enroll 55 MA and 20 CNA and LPN students annually.
2) Provide Online Work Readiness Assessment, Test for Adult Basic Education, basic skill modules, remediation, and classroom learning.
3) Connect students with clinical externship opportunities.
4) Provide support services.
5) Collaborate with Southland Health Careers and Prairie State College for CNA- and MA-track courses.
6) Collaborate with the Coalition of African American Nurses for LPN-track courses.
7) Collaborate with Medix for access to electronic health records.

To achieve these goals, Southland provided financial support for tuition, examinations, books, fees, training supplies, certification testing, drug screening, and criminal background checks for participants. The MA required 50 hours of coursework on medical terminology, insurance billing and coding, medical ethics, customer service, and legal implications of the administrative and clerical position; the electronic health records required 40 hours on the fundamentals of health information technology as it relates to electronic health records and health information exchange; the CNA required seven credit hours to gain basic skills necessary to give basic patient care in a nursing home or hospital; and phlebotomy technician required 90 hours of coursework to prepare students to collect blood specimens for the purpose of laboratory analysis.

Southland's applicants often face many barriers to successfully completing their training, typically related to students' lack of self-confidence and poor academic experiences prior to enrolling. Support services such as financial aid, child care services, case management, and referrals were available on an as-needed basis. For customer service skills the Employability Skills Series called "Working with People" was offered to help learners develop critical interpersonal skills essential for succeeding in the workforce (four to six hours). Video segments illustrated important problem-solving skills, conflict resolution techniques, and practical customer service skills in a real-life work setting. Also, a life skills course called "You Can Make It Happen: Nine Steps to Success" (20–25 hours) was designed to help individuals obtain a sense of self and which negative and positive experiences/relationships could affect their future. Students were urged to take control; through a series of steps, they created a vision and plan of the action necessary to establish schedules to persist in their quest for a better life.

HPOG Program Partner 2: Gateway Technical College

Gateway Technical College (Gateway) is part of the Wisconsin Technical College System and is an accredited postsecondary institution that grants technical diplomas and two-year associate's degrees. Established in 1911, Gateway serves the southeastern Wisconsin counties of Kenosha, Racine, and Walworth with a total population that exceeds 400,000; many of these residents work outside the district boundaries or commute to Illinois. Curriculum is developed collaboratively with industry partners and Gateway to provide sound teaching methodology. The HPOG project titled "The Gateway Health Professions Opportunities Program (HPOP)" was awarded, and it was administered as a comprehensive collaborative program that features adult basic education, college-level coursework within a health care career pathway, soft skills development, and case management services. Program services included classroom instruction, mentoring, mock interviewing, grooming, professionalism and ethics training, job shadowing, and health career exploration. All eligible individuals could receive financial aid, child care services, case management, and other support services. Support services for TANF recipients and other low-income individuals included transportation, dependent care, and temporary housing, which

are necessary to participate in funded activities. The HPOP integrated academic instruction with occupational skills training in specific health care fields, linking opportunities to improve basic literacy and mathematics skills and obtain a high school education or GED with work-based learning in the health care industry.

Gateway provided training and support for career progression along the health care career pathways, as well as short-term skills certification or credentialing that enabled incumbent workers to advance along health care career ladders. These included licenses, certificates, diplomas, and degrees. Gateway's extensive health care career ladders include the allied health program and nursing programs, both with multiple layers of certificates, diplomas, and associate's degrees. A new health apprenticeship certificate was developed for those already holding a high school diploma or equivalent, or those finishing that portion of the HPOP. The certificate program became the entry point into the health care courses, providing support for the student on many levels.

The certificate had six three-credit courses to be completed in one semester and included courses in medical terminology, career exploration (clinical shadowing), introduction to the health care industry, general education remediation (focus on writing and math), introduction to Gateway, soft skills, and an assessment tool for English language learner students. Support services are in place at Gateway for English language learner students. Participants may obtain employment post-certification, or obtain employment and discontinue the program, obtain employment and continue in the program, or receive the certification and continue in the program. The accredited nursing program grants an associate's degree of nursing and prepares students for vocational licensure as LPNs and positions as CNAs. Gateway health care opportunities include 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.

University Research Partnership: Loyola University Chicago

Despite the numerous studies on economic vulnerability, the study of self-sufficiency is hindered by a lack of conceptual and measurement sophistication. First, the conceptual domains of self-sufficiency

are usually ideologically imposed versus empirically derived. Second, the measurement of self-sufficiency focuses primarily on the economic dimension of the concept. Third, studies on self-sufficiency rarely consider the processes of psychological transformation. For the most part, self-sufficiency is removed from the human development and change process and examined largely as an economic outcome wherein people who receive public benefits will become independent from government support and find jobs to be able to afford their basic needs.

The added value of this university-community partnership was the examination of a nontangible process using psychological self-sufficiency (PSS) as the theoretical framework (P. Hong 2013; R. Hong et al. 2019). Represented by the process that moves from perceived employment barriers to employment hope, PSS embodies hope and resilience building against the odds of giving up and disengaging from the goal-directed process. Often, this is captured by the staff as they coach students to stay positive and motivated as they face the many challenges that arise during the program (P. Hong, Kim, et al., forthcoming).

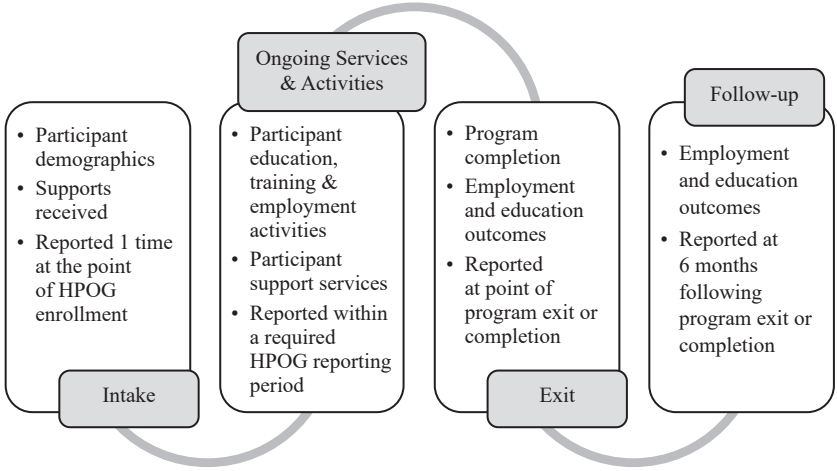
In our preparation meetings with the two HPOG program partners, it was echoed that there is a great need for measuring and monitoring PSS as an empowerment process–based benchmark capturing individual transformation as it contributes to ESS. Funders seldom request reporting on this benchmark (Harvey, P. Hong, and Kwaza 2010), and HPOG programs had not developed an evaluation metric or system to adequately represent its work on empowering students who wrestle with day-to-day employment barriers and social exclusion; it was as though these psychological processes did not exist or had little to do with the outcomes. This could validate the anecdotal evidence suggesting the importance of relationship-based psychological capital development that the staff emphasized was key to sustaining career pathway development for low-income students (P. Hong, Kim, et al., forthcoming).

The two HPOG programs partnered with Loyola to examine how the development of PSS could help their training programs prepare participants and fill labor shortages within high-demand, well-paying positions in the health care sector. HPOG program partners wanted to know which specific program activities were associated with PSS as an empowerment process for students that would lead to their success outcomes in HPOG program delivery—achieve health care skills and competencies, support career pathways, attain industry-recognized cer-

tificates or degrees, utilize support services in education and training to help participants overcome barriers to employment, and provide training services at times and locations that are easily accessible to the targeted populations.

As for Loyola, the partnership allowed the university to gather time-series data at four time points based on the PRS data collection schedule, as shown in Figure 10.1. Administering the PSS survey that contains questions on PSS—perceived employment barriers, employ-

Figure 10.1 HPOG Performance Reporting System Data Collection Schedule



SOURCE: HPOG Performance Reporting System.

ment hope, and ESS—and other positive psychological attributes complemented the analyses using the PRS data that were already being collected. Comparing these data among the two different HPOG sites was useful for strengthening support for untapped resources within the career pathways model, upon which the HPOG program is based.

In this regard, Loyola University Chicago's main research goal was twofold: first, to validate the factor structure of PSS, comprising employment hope and perceived employment barriers; and second, to

investigate the extent to which PSS is associated with ESS. The following key research questions were addressed:

1) How does PSS change over time during HPOG program participation?
2) How are PSS and ESS scores different between the two HPOG partners?
3) How is PSS associated with program completion and employment outcomes?
4) How does PSS affect ESS?

BACKGROUND LITERATURE

Evidence-based movement in public policy research has shifted the focus toward success outcomes, while many community-based practitioners have maintained the importance of process that leads to success (P. Hong 2013). Theory of change and logic models tend to omit the psychological process and transformation that provides the engine for any change at the individual, familial, and community systems. James G. March (1994) posited that decisions made based on analysis of cost and benefits may yield a good short-term outcome, but those made on the basis of identity provide long-term sustainable outcomes.

Rules prescribe, more or less precisely, what is appropriate action. They also, more or less precisely, tell actors where to look for precedents, who are the authoritative interpreters of different types of rules, and what the key interpretative traditions are. Still, the unambiguous authority of rules cannot be taken as given—it cannot be assumed that rules always dictate or guide behavior. Rather, it is necessary to understand the *processes* through which rules are translated into actual behavior and the factors that may strengthen or weaken the relation between rules and actions (March and Olsen, p. 7).

To focus on the identity—who job seekers are—and the process they take to become competent, work-ready candidates, vocational research provides a good background on the construct of hope. According to McWhirter, Hackett, and Bandalos (1998), three key models of

career psychology were empirically supported—Betz and Fitzgerald's (1987) realism of career choice, Farmer's (1985) achievement motivation model, and Hackett and Betz's (1981) self-efficacy of career model. Lent, Brown, and Hackett's (1994) social cognitive career theory, which built on these prior models, "aimed at understanding the processes through which people develop educational/vocational interest make career-relevant choices, and achieve performances of varying quality in the educational and occupational pursuits" (Lent, Brown, and Hackett 2002, p. 62). Self-efficacy beliefs, outcome expectations, and goals are intricately related variables that serve as the foundational makeup of social cognitive career theory. It is posited that individuals are likely to develop career interests and make career choices, and succeed in tasks for which they have strong self-efficacy beliefs and outcome expectations, given that they have the necessary skills and environmental supports.

Emergence of positive psychology has provided balance between studying the human deficiencies and the optimal human functioning (Seligman 2002). This movement in psychology has contributed to the development of positive organizational behavior (POB; Luthans 2002a), which focuses on "a positive approach to developing and managing human resources in today's workplace" (Luthans et al. 2007, p. 542). Luthans (2002b) defined POB as "the study and application of positively oriented human resource strengths and psychological capacities that can be measured, developed, and effectively managed for performance improvement" (p. 59). Capturing individual-level POB constructs were the four elements of hope, (self-)efficacy, resilience, and optimism (HERO) that were termed positive psychological capital or PsyCap (Luthans, Youssef, and Avolio 2007). High levels of HERO (together as a higher-order construct) have been found to be associated with desired employee attitudes, behaviors, and performance (Avey et al. 2011).

These theories may have postulated applicability to the general population using multiple positive psychological traits, but some vocational psychologists and other researchers have focused on minorities with particular emphasis on hope. Beck et al. (1974) introduced the hopelessness scale to capture individual's level of pessimism of future outcomes, and McWhirter, Hackett, and Bandalos (1998) reported on career expectations among Mexican-American high school girls.

Diemer and Blustein (2007) developed a vocational hope and identity measure to be applied to urban adolescent career development and identified four constructs of future career identification, vocational identity, work role resilience, and salience of chosen career. Juntunen and Wettersten (2006) and Yakushko and Sokolova (2010) validated the measures of work hope among economically disadvantaged youth and the Ukrainian college students respectively. Snyder et al. (1991) and Babyak, Snyder, and Yoshinobu (1993) from psychology and Herth (1991) from nursing have contributed significantly to the growth of hope as a construct and measure to theorize its effects on various positive life outcomes—not limited to employment and career outcomes.

Along with the widespread utilization of hope measures as a protective factor, P. Hong, Sheriff, and Naeger (2009) derived this concept as being central to their research by way of a bottom-up approach to conceptualizing and theorizing self-sufficiency from the perspective of low-income job seekers. Extensive qualitative analyses of focus groups were conducted to develop a measure that captured the experiences of low-income job seekers and their understandings of self-sufficiency (P. Hong 2013). The result of these investigations led to development of the Employment Hope Scale (EHS; P. Hong and Choi 2013, 2017; P. Hong, Choi, and Polanin 2014; P. Hong, Polanin, and Pigott 2012; P. Hong et al. 2016) and the Perceived Employment Barrier Scale (PEBS; P. Hong et al. 2014; P. Hong, Song, et al. 2018).

Combining the EHS and PEBS, the PSS process was theorized to affect the ESS outcome (P. Hong 2013). PSS speaks to the undoing of the psychological barriers that drew political criticisms as the source of long-term stay on welfare. It is the switching of these barriers into the hopeful possibilities that generate the momentum for goal commitment, pursuit, and achievement (R. Hong et al. 2019). However, less attention has been given to this as part of the comprehensive action plan to promote the ESS outcome (Cooney 2006).

This process of developing PSS is theoretically supported by a concept called "mental contrasting," which involves concurrently focusing on a positive outcome and the obstacles that block the path to the outcome (Duckworth et al. 2011). By engaging in the process of contrasting the barrier-filled reality with the desired future outcome, one generates positive energy toward goals (Oettingen 2000; Oettingen, Pak, and Schnetter 2001). Perceiving barriers first as barriers is the starting point

in this psychological process to transform the negative self-assessment into a positive one and channel this toward the desired future outcomes (P. Hong 2013).

STUDY METHODOLOGY

Data and Data Collection Strategy

This study examined adults receiving health care career pathway training and employment support at two HPOG partner sites. Approximately 834 respondents were recruited to participate in the survey. The PSS survey instrument was developed and approved by Loyola University Chicago's institutional review board. Program participants were asked to participate in surveys at four different time points (start of program, middle of program, end of program/employment, and six-month follow-up)—consistent with the HPOG partners' PRS scheduled data collection and entry (see Figure 10.1).

Loyola University Chicago researchers also conducted seven focus groups of staff, employers, alumni, and current students from the two HPOG program partner sites to supplement the quantitative data. They used this qualitative data to further examine the extent to which HPOG program participation affected PSS and to explore which key programmatic components of HPOG significantly influenced successful program completion and economic success.

Measures and Analyses

The PSS survey collected basic demographic information and measured employment-related intrapersonal and noncognitive skills, employment hope, and perceived barriers to employment.

The Short Employment Hope Scale (EHS-14) was used to measure the positive psychometric properties of PSS (P. Hong, Choi, and Polanin 2014). The 4-factor, 14-item Likert-type scale—ranging between 0 at the lower end and 10 at the higher end—has been found to have a high reliability and validity in the cross-national context (P. Hong et al. 2016). The four factors or subscales of EHS are 1) psychological

empowerment, 2) futuristic self-motivation, 3) utilization of skills and resources, and 4) goal orientation (P. Hong, Choi, and Polanin 2014). The average score of EHS with 10 being the maximum possible score and 0 being the lowest possible score was used to denote employment hope.

The Perceived Employment Barrier Scale (PEBS) was used to measure the barriers among HPOG program participants (P. Hong et al. 2014). The 5-factor, 20-item Likert-type PEBS ranged between 1 at the lower end and 5 at the higher end with a high reliability and validity and robust cross-cultural applicability (P. Hong et al. 2018): 1) health and mental health barriers, 2) human capital barrier, 3) labor market exclusion barrier, 4) child care barrier, and 5) soft skills barrier (P. Hong et al. 2014). Each item measured the extent to which respondents personally perceived it to be a barrier to finding employment, and the average score of all 20 items was calculated to capture the overall level of perceived employment barrier.

PSS was measured by taking the difference score between the EHS and PEBS (P. Hong, Choi, and Key 2018). ESS was measured using the WEN ESS Scale to capture the multidimensionality of economic well-being (Gowdy and Pearlmutter 1993). This continuous measure includes various questions that fall under four factors: 1) autonomy and self-determination, 2) financial security and responsibility, 3) family and self-well-being, and 4) basic assets for community living.

As for the focus group data, the following questions were used as the guide:

1) HPOG program in general. “What are your overall feelings as you go through this HPOG program? Now that you are in a training program, how is it different from what you thought it would be?”
2) Goals. “What made you decide to pursue your education through HPOG? Talk about some of your goals. How has being in the HPOG program helped you develop your goals?”
3) Internal and external motivation. “What were your internal and external motivations initially in the program, and what has motivated you to keep going? How has being in the HPOG program changed the way you feel about yourself? How has the program changed how you consider your chances for getting a job?”

4) Barriers vs. support. "What do you think are the things that make it hard for you to get a job? What supports will help you get a job? Will these supports help you overcome the obstacles that were mentioned?"
5) Linkages. "How do goals, motivation, and barriers come together for you? How do you think hope plays a part in your training right now? Is hope from within or from other people?"

A series of rigorous statistical analyses for quantitative data were conducted to examine the relationship between PSS and ESS among HPOG program participants at the two program partner sites. Qualitative content analysis was further conducted to fully explicate the meaning of the texts in focus group data. After open coding, the information derived from the focus groups was segmented with the codes based on the meaning units, which were later semantically classified. Data reduction was then involved to identify and highlight the most relevant and meaningful descriptions of texts (Schreier 2012). To ensure trustworthiness throughout the study, the researchers used credibility, dependability, conformability, and transferability, following the suggestions of Lincoln and Guba (1985).

Sample Description of HPOG Students by Two HPOG Sites

Participants in the HPOG programs at Southland and Gateway could be characterized as low-income job seekers who lack education and skills, have limited human capital or have health problems, are challenged with a host of employment barriers, have lived in areas of concentrated poverty and joblessness, and subsequently have difficulty finding and keeping jobs.

Of 834 participants, 64.05 percent were working in jobs that they had been with for an average of 1,000 days at an average hourly rate of $10.80. As shown in Table 10.1, only 39.69 percent were employed in jobs that sponsored their health insurance, and 26.6 percent had jobs that provided a pension. Only 33.81 percent of workers were able to pay all their bills with their earned income. Nearly 70 percent had at least one child, and approximately 20 percent had more than three children. It was also revealed that a majority of participants (95.45 percent) had at least one other adult living in the household, and 91.21 percent had one or more earners living in the same household to help offset the cost

Table 10.1 Sample Characteristics

	Southland (N = 386)		Gateway (N = 448)		Total (N = 834)	
Characteristics	N / M	% / SD	N / M	% / SD	N / M	% / SD
Employed						
Yes	196	53.26	319	73.17	515	64.05
No	172	46.74	117	26.83	289	35.95
Employed days	916 (1,148)		1,152 (1,402)		1,043 (1,293)	
Hourly wage ($)	11.24 (5.59)		10.54 (3.31)		10.80 (4.30)	
Health insurance						
Yes	77	39.09	131	40.06	208	39.69
No	120	60.91	196	59.94	316	60.31
Pension						
Yes	45	23.44	92	28.48	137	26.60
No	147	76.56	231	71.52	378	73.40
Able to pay bills						
Yes	81	23.14	177	42.86	258	33.81
No	269	76.86	236	57.14	505	66.19
Children						
0	112	30.27	136	31.41	248	30.88
1	104	28.11	119	27.48	223	27.77
2	83	22.43	91	21.02	174	21.67
3 or above	71	19.19	87	20.09	158	19.68
Adult(s)						
0	14	3.71	23	5.26	37	4.55
1	172	45.62	179	40.96	351	43.12
2	113	29.97	149	34.10	262	32.19
3 or above	78	20.69	86	19.68	164	20.15
Earner(s)						
0	42	11.54	27	6.41	69	8.79
1	233	64.01	239	56.77	472	60.13
2	70	19.23	112	26.60	182	23.18
3 or above	19	5.22	43	10.21	62	7.90
House income	16,216 (14,606)		20,880 (19,351)		18,830 (17,567)	
Welfare benefit(s)						
Yes	211	56.87	191	44.32	402	50.12
No	160	43.13	240	55.68	400	49.88

(continued)

Table 10.1 (continued)

	Southland (N = 386)		Gateway (N = 448)		Total (N = 834)	
Characteristics	N / M	% / SD	N / M	% / SD	N / M	% / SD
Marital status						
Married, spouse present	40	10.64	82	19.07	122	15.14
Married, spouse absent	20	5.32	13	3.02	33	4.09
Never married	258	68.62	262	60.93	520	64.52
Separated	13	3.46	10	2.33	23	2.85
Divorced	41	10.90	60	13.95	101	12.53
Widowed	4	1.06	3	0.70	7	0.87
Housing						
Rental	144	44.86	246	60.59	390	53.65
Own home/condo	111	34.58	79	19.46	190	26.13
No home	4	1.25	12	2.96	16	2.02
Assisted housing	26	8.10	41	10.10	67	9.22
Other	36	11.21	28	6.90	64	8.80
Age (years)	31.48	(10.19)	30.39	(9.55)	30.94	(9.89)
Gender						
Male	32	8.74	26	7.37	58	8.07
Female	334	91.26	327	92.63	661	91.83
Race						
Native American or Alaska Native	–	–	2	0.56	2	0.28
Asian or Pacific Islander	1	0.28	2	0.56	3	0.42
Black or African American	246	68.72	115	32.39	361	50.63
White or European American	48	13.41	156	43.94	204	28.61
Nonwhite Hispanic	33	9.22	46	12.96	79	11.08
Bi-/multiracial	24	6.70	28	7.89	52	7.29
Other	6	1.68	6	1.69	12	1.68
Education level						
Less than high school	3	0.83	20	5.81	23	3.26
High school/GED	72	19.89	94	27.33	166	23.51
Some college but no degree	148	40.88	113	32.85	261	36.97
Diploma or certificate from voc., tech, etc.	74	20.44	75	21.80	149	21.10

Table 10.1 (continued)

	Southland (N = 386)		Gateway (N = 448)		Total (N = 834)	
Characteristics	N / M	% / SD	N / M	% / SD	N / M	% / SD
Associate's degree	27	7.46	25	7.27	52	7.37
Bachelor's degree	29	8.01	14	4.07	43	6.09
Master's degree	9	2.49	1	0.29	10	1.42
Professional school degree	–	–	2	0.58	2	0.28
Longest job experience (years)	3.93 (6.03)		4.57 (6.42)		4.24 (6.23)	

NOTE: M = Mean. SD = Standard Deviation.
SOURCE: Authors' calculations based on survey data.

of living. Just over half the participants received some type of public assistance, and nearly 65 percent had never been married before and 80 percent were single. As for housing, nearly 80 percent either rented or owned a home, and 2.02 percent had no stable housing. Participants were a little older than 30 years of age, mostly women (91.83 percent), and largely minority—50.63 percent black or African American, 11.08 percent nonwhite Hispanic, and 7.29 percent multiracial. About 23.51 percent had a high school degree or equivalent, and about 73 percent had some postsecondary education. Participants' longest job experience was on average 4.24 years.

While the two HPOG program partners were similar in many of the demographic information, some key differences between the two are noteworthy. Compared to Southland (53.26 percent), Gateway (73.17 percent) had far more students who were working during HPOG program participation, and they tended to have worked longer days in the current job at a lower hourly rate. Gateway participants (42.86 percent) viewed at a greater rate than Southland participants (23.14 percent) that they were able to pay all their bills with their earned income. Also, Gateway students had more earners in the household, and a greater percentage of them lived in a household with two or more additional earners. Gateway students found themselves in households with greater average annual incomes, and fewer of them (44.32 percent) received public assistance compared to Southland students (56.87 percent). Slightly more Gateway students (22.09 percent) were currently mar-

ried compared to their counterparts at Southland (15.96 percent). Gateway showed more rental homes (60.59 percent) compared to Southland (44.86 percent), while its homeownership (19.46 percent) was much lower than Southland (34.58 percent). Age and gender distribution was roughly the same, but Gateway had a greater proportion of white students (43.94 percent) compared to Southland (13.41 percent).

STUDY FINDINGS

Quantitative Results

At the end of HPOG 1.0 program implementation in September 2016, 834 students (92 percent of all participating HPOG students at the partner sites) had completed the first survey, 577 (69 percent) the second survey, and 326 (56 percent) the third survey. Over the four survey points, about 70 percent reported having increased their employment hope, and 57 percent reported having decreased their perceived employment barriers. As hypothesized, results indicated that PSS significantly contributes to ESS—specifically, increases in PSS contributed significantly to the increase in ESS outcomes. This suggests that workforce development practitioners should focus on clients' PSS when working with them to achieve ESS outcomes. Specifics of these results are discussed below, based on the research questions as presented before.

Research Question 1: How does PSS and ESS change over time during HPOG program participation?

Table 10.2 shows changes in PSS score over time during HPOG program participation. There is an increase in the PSS score between Time 1 and 2, and it remains about the same at Time 3. However, there is a significant decrease at Time 4. This pattern is consistent with the over-time change in employment hope and all of its subscales. Interestingly, perceived employment barriers drops between Time 1 and 2 and between Time 3 and 4. Particularly, the score difference between Time 1 and Time 4 for child care and human capital barriers declined at a statistically significant level.

Table 10.2 Descriptive Statistics (Total Sample)

	Time 1		Time 2		Time 3		Time 4		
Construct	M	SD	M	SD	M	SD	M	SD	F
Psychological self-sufficiency (PSS)	7.40	1.48	7.58	1.40	7.57	1.49	7.12	1.92	4.27** (Diff T2,T3 > T4)
Employment hope scale (EHS)	9.23	1.09	9.32	1.00	9.34	1.00	8.82	1.62	7.53*** (Diff T1,T2,T3 > T4)
Factor 1: Psychological empowerment	9.35	1.16	9.38	1.19	9.42	1.13	8.90	1.82	5.47** (Diff T1,T2,T3 > T4)
Factor 2: Futuristic self-motivation	9.24	1.27	9.25	1.26	9.24	1.34	8.74	1.86	5.09** (Diff T1,T2,T3 > T4)
Factor 3: Utilization of skills and resources	8.97	1.44	9.18	1.25	9.24	1.14	8.82	1.70	5.97*** (Diff T2,T3 > T4)
Factor 4: Goal-orientation	9.37	1.16	9.44	1.02	9.41	1.13	8.76	1.96	10.41*** (Diff T1,T2,T3 > T4)
Perceived employment barriers (PEB)	1.84	0.88	1.75	0.89	1.77	0.96	1.69	0.91	1.69
Factor 1: Physical & mental health	1.44	1.07	1.41	1.05	1.46	1.11	1.46	1.06	0.23
Factor 2: Labor market exclusion	2.18	1.11	2.07	1.07	2.07	1.12	1.93	1.13	2.54
Factor 3: Child care	1.96	1.18	1.84	1.19	1.88	1.22	1.64	1.04	2.99* (Diff T1 > T4)
Factor 4: Human capital	2.08	1.12	1.95	1.13	1.97	1.16	1.82	1.10	2.88* (Diff T1 > T4)
Factor 5: Soft skills	1.62	0.97	1.55	0.94	1.56	1.00	1.62	0.99	0.82

NOTE: *significant at the 0.10 level; **significant at the 0.05 level; ***significant at the 0.01 level. Time 1 (N = 834), Time 2 (N = 605), Time 3 (N = 422), Time 4 (N = 108).

SOURCE: Authors' calculations based on survey data.

Table 10.3 Descriptive Statistics (Total Sample)

	Time 1		Time 2		Time 3		Time 4		
Construct	M	SD	M	SD	M	SD	M	SD	F
Economic self-sufficiency (ESS)	2.78	0.96	2.82	0.97	2.91	1.00	3.23	1.02	6.81*** (Diff T1,T2,T3 < T4)
Resilience (R)	3.40	0.71	3.43	0.74	3.45	0.72	3.18	0.77	3.72* (Diff T1,T2,T3 > T4)
Self-efficacy (SEF)	4.42	0.53	4.45	0.53	4.46	0.57	4.10	0.67	11.92*** (Diff T1,T2,T3 > T4)

NOTE: *significant at the 0.10 level; **significant at the 0.05 level; ***significant at the 0.01 level. Time 1 (N = 834), Time 2 (N = 605), Time 3 (N = 422), Time 4 (N = 108).

SOURCE: Authors' calculations based on survey data.

As for ESS, it gradually increases over the course of program participation. Particularly, the Time 4 score is significantly greater than the earlier three time points (see Table 10.3). Overall resilience and self-efficacy marginally increased from Time 1 to Time 3 but saw a significant drop at Time 4.

Table 10.4 describes information drawn from the PRS data and compares the PSS scores over time by each of the psychologically related support services provided by HPOG. PSS scores were maintained higher during Times 1–3 for participants who received academic counseling and case management compared to those who did not, and the drop in score at Time 4 was smaller in magnitude but statistically significant for those who did not use academic counseling. PSS scores increased at a higher rate during Times 1–3 for participants who received career counseling and job search services compared to those who did not, and the drop in PSS score was statistically significant for those who did not receive this service. Only 14 cases received mentoring service, and the score drop at Time 4 was as much as three full PSS points. However, the nonrecipient of the mentoring services had Time 4 PSS score significantly lower than the previous Time 2 and 3 scores.

Research Question 2: How are PSS and ESS scores different between the two HPOG partners?

Tables 10.5 and 10.6 present the difference in the PSS score change over time between the two HPOG program partners. Both start relatively equal at Time 1—7.38 for Southland and 7.41 for Gateway—but Southland increases marginally at Time 2 and drops at Time 3 to further decrease at Time 4. Gateway increases between Time 1 and 2 and between Time 2 and 3, only to see the PSS score drop to 7.06 compared to 7.19 for Southland at Time 4.

Employment hope at Southland continued to stay consistently high between Time 1 and 3, but the score dropped significantly at Time 4. All four subscales saw a significant decrease at Time 4. Barriers decreased overall, and in particular, labor market exclusion and human capital barriers subscales decreased at a statistically significant level at Time 4. Figure 10.2 shows the trend analysis.

For Gateway, employment hope score was lower compared to Southland, but the over time change showed a similar increasing pattern with the score at Time 4 dropping significantly. Interestingly, only

Table 10.4 PSS Scores over Time by Support Services (Total Sample)

		Time 1		Time 2		Time 3		Time 4		
Construct	N	M	SD	M	SD	M	SD	M	SD	F
Academic counseling										
Yes	137	7.44	1.64	7.84	1.11	7.87	1.29	6.67	2.66	2.62
No	1,547	7.39	1.50	7.58	1.40	7.57	1.50	7.25	1.77	2.64*
Career counseling										
Yes	92	7.27	1.49	7.51	1.42	7.64	1.44	6.44	3.23	1.23
No	1,592	7.40	1.51	7.61	1.37	7.59	1.49	7.24	1.74	3.40* (Diff T2 > T4)
Case management										
Yes	143	7.41	1.62	7.76	1.25	7.77	1.35	6.67	2.66	2.11
No	1,541	7.39	1.50	7.59	1.39	7.58	1.50	7.25	1.77	2.82*
Job search										
Yes	53	7.27	1.70	7.38	1.56	7.51	1.73	5.81	3.84	1.03
No	1,631	7.39	1.50	7.61	1.37	7.60	1.48	7.24	1.77	3.67* (Diff T2,T3 > T4)
Mentoring										
Yes	14	7.11	1.55	7.00	0.87	7.25	0.72	4.25	6.72	0.79
No	1,670	7.39	1.50	7.61	1.38	7.60	1.49	7.23	1.76	3.81** (Diff T2,T3 > T4)

NOTE: *significant at the 0.10 level; **significant at the 0.05 level; ***significant at the 0.01 level. Time 1 (N = 710), Time 2 (N = 520), Time 3 (N = 355), Time 4 (N = 99).

SOURCE: Authors' calculations based on survey data.

Table 10.5 Descriptive Statistics (Southland)

	Time 1		Time 2		Time 3		Time 4		
Construct	M	SD	M	SD	M	SD	M	SD	F
Psychological self-sufficiency (PSS)	7.38	1.46	7.51	1.43	7.41	1.56	7.19	1.57	0.88
Employment hope scale (EHS)	9.38	0.93	9.40	0.94	9.34	1.00	8.87	1.24	4.76** (Diff T1,T2,T3 > T4)
Factor 1: Psychological empowerment	9.55	0.97	9.49	1.06	9.48	0.94	8.84	1.75	7.24*** (Diff T1,T2,T3 > T4)
Factor 2: Futuristic self-motivation	9.40	1.16	9.37	1.17	9.24	1.38	9.24	1.79	5.65*** (Diff T1,T2,T3 > T4)
Factor 3: Utilization of skills and resources	9.07	1.32	9.22	1.24	9.22	1.15	8.89	1.38	1.76*** (Diff T1,T2,T3 > T4)
Factor 4: Goal-orientation	9.50	0.99	9.50	0.99	9.38	1.18	8.99	1.65	4.05** (Diff T1,T2,T3 > T4)
Perceived employment barriers (PEB)	2.00	0.99	1.90	1.00	1.93	1.08	1.68	0.94	1.68
Factor 1: Physical & mental health	1.64	1.29	1.58	1.23	1.62	1.27	1.42	1.04	0.55
Factor 2: Labor market exclusion	2.42	1.13	2.32	1.13	2.32	1.19	1.94	1.19	2.79* (Diff T1,T2,T3 > T4)
Factor 3: Child care	1.97	1.19	1.97	1.31	1.99	1.34	1.57	1.05	1.79
Factor 4: Human capital	2.32	1.26	2.10	1.22	2.14	1.26	1.79	0.99	3.77* (Diff T1 > T4)
Factor 5: Soft skills	1.73	1.11	1.64	1.03	1.69	1.11	1.67	1.07	0.39

NOTE: *significant at the 0.10 level; **significant at the 0.05 level; ***significant at the 0.01 level. Time 1 (N = 386), Time 2 (N = 288), Time 3 (N = 225), Time 4 (N = 54).

SOURCE: Authors' calculations based on survey data.

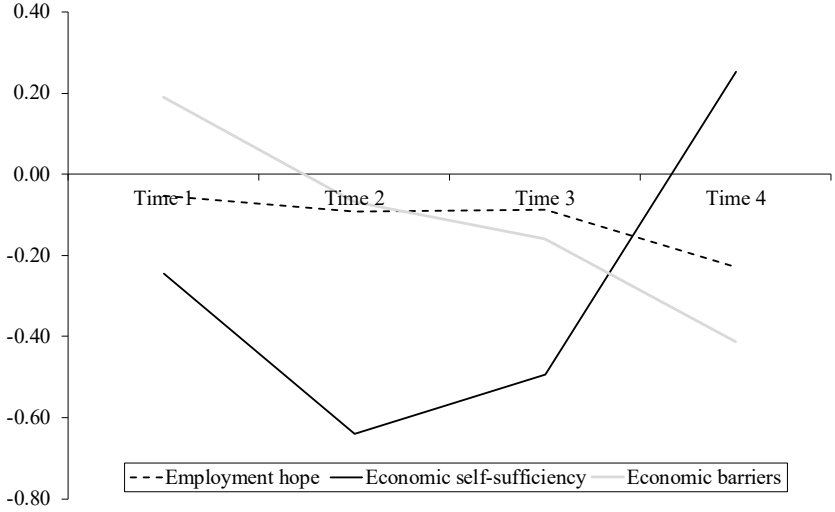
Table 10.6 Descriptive Statistics (Gateway)

	Time 1		Time 2		Time 3		Time 4		
Construct	M	SD	M	SD	M	SD	M	SD	F
Psychological self-sufficiency (PSS)	7.41	1.50	7.64	1.38	7.74	1.39	7.06	2.23	4.66** (Diff T2,T3 > T4)
Employment hope scale (EHS)	9.11	1.20	9.25	1.04	9.33	1.02	8.76	1.93	4.20** (Diff T2,T3 > T4)
Factor 1: Psychological empowerment	9.19	1.28	9.27	1.28	9.34	1.31	8.97	1.90	1.45
Factor 2: Futuristic self-motivation	9.11	1.35	9.15	1.32	9.24	1.30	8.80	1.95	1.54
Factor 3: Utilization of skills and resources	8.89	1.53	9.14	1.27	9.25	1.13	8.76	1.97	4.41** (Diff T3 > T4)
Factor 4: Goal-orientation	9.24	1.28	9.38	1.05	9.43	1.07	8.54	2.22	8.16*** (Diff T1,T2,T3 > T4)
Perceived employment barriers (PEB)	1.70	0.75	1.61	0.76	1.58	0.77	1.70	0.89	1.54
Factor 1: Physical & mental health	1.26	0.80	1.25	0.82	1.28	0.86	1.50	1.10	1.48
Factor 2: Labor market exclusion	1.98	1.06	1.85	0.96	1.79	0.96	1.93	1.08	2.00
Factor 3: Child care	1.95	1.17	1.73	1.05	1.75	1.05	1.70	1.04	3.34*
Factor 4: Human capital	1.88	0.94	1.81	1.03	1.78	1.00	1.84	1.20	0.60
Factor 5: Soft skills	1.53	0.82	1.47	0.85	1.41	0.84	1.57	0.91	1.16

NOTE: *significant at the 0.10 level; **significant at the 0.05 level; ***significant at the 0.01 level. Time 1 (N = 448), Time 2 (N = 317), Time 3 (N = 197), Time 4 (N = 54).

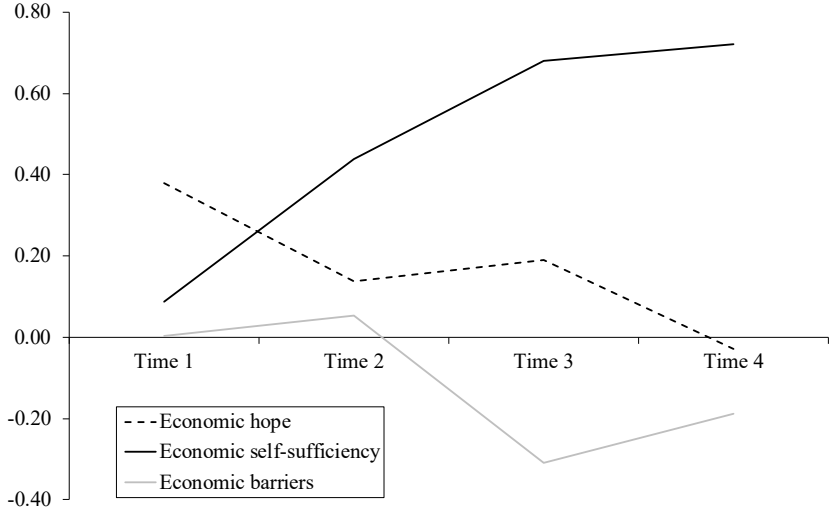
SOURCE: Authors' calculations based on survey data.

Figure 10.2 Descriptive Trend Analysis of Psychological Self-Sufficiency (Barriers and Hope) and Economic Self-Sufficiency at Southland



SOURCE: Authors' calculations based on survey data.

Figure 10.3 Descriptive Trend Analysis of Psychological Self-Sufficiency (Barriers and Hope) and Economic Self-Sufficiency at Gateway



SOURCE: Authors' calculations based on survey data.

two of four subscales—utilization of skills and resources and goal orientation—saw significant decrease at Time 4. Child care barrier was the only subscale that decreased significantly at Time 4. Figure 10.3 shows the trend analysis.

As for ESS, Southland's score was lower (2.59) compared to Gateway (2.94) at Time 1 but displayed consistent increase to Time 4, with the Time 4 score being significantly larger than the previous three time points (see Table 10.7). A similar trend was observed for Gateway, and the Time 4 score (3.42) was greater than that of Southland's (3.11) (see Table 10.8). Resilience and self-efficacy were found to significantly decrease at Time 4 in the Southland sample but not at Gateway.

Research Question 3: How is PSS associated with program completion and employment outcomes?

This analysis used the PRS and PSS survey data. Table 10.9 first illustrates the change in PSS scores over time between those who were employed at exit and those who were not. The PSS score was higher at Time 3 for those who found employment at exit compared to their counterparts, and the drop in score at Time 4 was much greater at a statistically significant level for those who did not find employment at the time of exit.

When comparing those who were employed at a follow-up date with those who were not, PSS scores were greater at all time points for those who were employed compared to those who were not. The Time 1 and Time 3 PSS scores were particularly higher at a statistically significant level. Also, those who were not employed at follow-up had a significant drop in PSS score at Time 4.

Similarly for HPOG program completion, the PSS score at Time 1 was slightly higher for those who did complete compared to those who did not. The completed group maintained higher PSS scores throughout Times 1–4, and the Time 4 score in particular was statistically significantly higher for those who completed the HPOG program compared to those who did not. While the group that completed the program experienced very little reduction in the PSS score at Time 4, the amount of decrease was statistically significant for those who did not complete the program. The average hourly wage at follow-up was $13.35 for all HPOG participants at Southland and Gateway.

Table 10.7 Descriptive Statistics (Southland)

	Time 1		Time 2		Time 3		Time 4		
Construct	M	SD	M	SD	M	SD	M	SD	F
Economic self-sufficiency (ESS)	2.59	0.98	2.55	0.95	2.70	1.02	3.11	0.98	5.54*** (Diff T1,T2,T3 < T4)
Resilience (R)	3.53	0.66	3.53	0.74	3.48	0.75	3.08	0.81	6.73*** (Diff T1,T2,T3 > T4)
Self-efficacy (SEF)	4.51	0.52	4.52	0.54	4.49	0.56	3.89	0.71	21.16*** (Diff T1,T2,T3 > T4)

NOTE: *significant at the 0.10 level; **significant at the 0.05 level; ***significant at the 0.01 level. Time 1 (N = 386), Time 2 (N = 288), Time 3 (N = 225), Time 4 (N = 54).
SOURCE: Authors' calculations based on survey data.

Table 10.8 Descriptive Statistics (Gateway)

	Time 1		Time 2		Time 3		Time 4		
Construct	M	SD	M	SD	M	SD	M	SD	F
Economic self-sufficiency (ESS)	2.94	0.92	3.06	0.93	3.15	0.93	3.42	1.08	4.76** (Diff T1,T2 < T4)
Resilience (R)	3.28	0.74	3.34	0.73	3.42	0.69	3.33	0.69	1.16
Self-efficacy (SEF)	4.34	0.52	4.40	0.51	4.42	0.57	4.39	0.49	1.24

NOTE: *significant at the 0.10 level; **significant at the 0.05 level; ***significant at the 0.01 level. Time 1 (N = 448), Time 2 (N = 317),Time 3 (N = 197), Time 4 (N = 54).
SOURCE: Authors' calculations based on survey data.

Table 10.9 Descriptive Statistics (Total Sample)

		Time 1		Time 2		Time 3		Time 4		
Construct	N	M	SD	M	SD	M	SD	M	SD	F
Employed at exit		0.32(NS)		0.33(NS)		1.65(NS)		0.88(NS)		
Yes	584	7.42	1.57	7.63	1.49	7.78	1.38	7.37	1.92	1.86
No	1,100	7.38	1.47	7.59	1.31	7.50	1.53	7.02	1.91	3.14* (Diff T2,T3 > T4)
Health care employer		0.39(NS)		1.26(NS)		1.61(NS)		0.11(NS)		
Yes	446	7.43	1.67	7.73	1.49	7.81	1.43	7.20	2.11	2.17
No	1,238	7.38	1.45	7.56	1.33	7.52	1.50	7.16	1.82	2.28
Employed at follow-up date		2.16*		0.73(NS)		2.11*		1.43(NS)		
Yes	305	7.56	1.19	7.71	1.25	7.95	1.15	7.60	1.92	0.93
No	1,379	7.33	1.56	7.59	1.40	7.52	1.54	6.99	1.90	4.57** (Diff T2,T3 > T4)
Exited		0.87(NS)		0.22(NS)		1.88(NS)		1.47(NS)		
Yes	915	7.43	1.55	7.62	1.40	7.75	1.35	7.42	1.88	2.21
No	769	7.33	1.44	7.59	1.34	7.45	1.58	6.86	1.93	3.58* (Diff T2,T3 > T4)
HPOG completed		0.58(NS)		0.17(NS)		1.54(NS)		2.43*		
Yes	689	7.43	1.53	7.62	1.44	7.73	1.38	7.71	1.44	1.69
No	995	7.36	1.48	7.60	1.33	7.49	1.56	6.79	2.11	5.22** (DiffT1,T2,T3 > T4)
Hourly wage at follow-up						13.35 (6.43)				

NOTE: *p < 0.05; **p < 0.01; ***p < 0.001; NS = not significant. Time 1 (N = 710), Time 2 (N = 520), Time 3 (N = 355), Time 4 (N = 99).
SOURCE: Authors' calculations based on survey data; HPOG Performance Reporting System.

Table 10.10 Descriptive Statistics (Southland)

		Time 1		Time 2		Time 3		Time 4		
Construct	N	M	SD	M	SD	M	SD	M	SD	F
Employed at exit										
Yes	34	7.56	1.30	7.75	1.75	7.87	0.72	7.88	1.23	0.13
No	720	7.35	1.49	7.56	1.34	7.43	1.57	7.17	1.62	1.35
Health care employer										
Yes	15	8.02	1.24	8.43	0.54	8.20	0.70	7.75	1.70	0.18
No	739	7.34	1.48	7.56	1.36	7.44	1.55	7.19	1.60	1.32
Employed at follow-up date										
Yes	87	7.72	1.19	7.61	1.49	7.62	1.30	7.89	1.40	0.11
No	667	7.30	1.51	7.56	1.34	7.43	1.58	7.10	1.61	1.80
Exited										
Yes	111	7.57	1.66	7.81	1.22	7.77	1.28	8.12	1.29	0.45
No	643	7.31	1.44	7.53	1.37	7.40	1.58	7.02	1.60	1.76
HPOG completed										
Yes	94	7.56	1.68	7.56	1.51	7.62	1.38	7.97	1.45	0.15
No	660	7.32	1.45	7.57	1.34	7.42	1.57	7.09	1.60	1.79
Hourly wage at follow-up					14.78 (7.06)					

NOTE: Time 1 (N = 307), Time 2 (N = 223), Time 3 (N = 173), Time 4 (N = 51).
SOURCE: Authors' calculations based on survey data; HPOG Performance Reporting System.

Examining the association between PSS and program completion and employment outcomes at each HPOG program level, the overall trend was mostly consistent but had some locally particular data patterns. As presented in Table 10.10, Southland's data showed that the PSS scores continued to rise for those who completed the program at all time points and maintained higher scores, particularly at Times 3 and 4. PSS was higher for those who were employed at exit, who had health care employment, and who were employed at follow-up during Times 1–4. It was interesting to find that the PSS scores did not experience a drop at Time 4 except for those who were employed in health care. Even in this case, the drop at Time 4 was not as large in magnitude compared to those who were not. The average hourly wage at follow-up was $14.78.

For Gateway, as shown in Table 10.11, the group that found employment at exit had a PSS score that was closely tied with its counterpart at Times 1 and 2, but the gap widened at Time 3, and the drop at Time 4 was not as precipitous compared to those who were not employed at exit. For health care employment, the gap started widening at Time 2 after starting at a similar point at Time 1, and the score at Time 4 ended up being higher than those who were not employed in health care. Those who were employed at follow-up started with a higher PSS score and maintained higher scores throughout program participation and at follow-up Time 4. The drop in PSS score at Time 4 was statistically significant in reference to its Time 2 and Time 3 scores for those who were not employed at follow-up. Program completion followed the same pattern as that of employment at exit, and those who did not complete experienced a significant decrease in the PSS score at Time 4 in comparison to its Time 1–3 PSS scores. The average hourly wage at follow-up was $12.75.

Research Question 4: How does PSS affect economic self-sufficiency (ESS)?

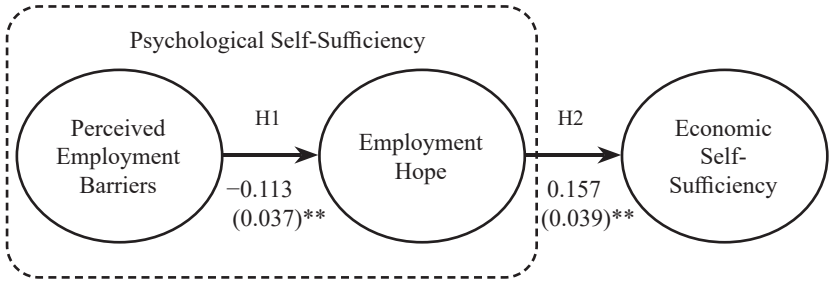
After validating the latent factor structure of the measurement model, the PSS theoretical model was tested using a structural equation modeling (SEM) technique (P. Hong, Choi, and Key 2018). As shown in Figure 10.4, all fit indices indicate that the hypothesized model has a good fit to the data, $\chi^2 = 304.287$, p = 0.000, df = 63, CFI = 0.957, TLI = 0.947, RMSEA = 0.068 [0.060 − 0.075]. PEBS had a negative associa-

Table 10.11 Descriptive Statistics (Gateway)

		Time 1		Time 2		Time 3		Time 4		
Construct	N	M	SD	M	SD	M	SD	M	SD	F
Employed at exit										
Yes	550	7.41	1.59	7.63	1.49	7.77	1.42	7.33	1.97	1.78
No	380	7.43	1.45	7.65	1.24	7.67	1.42	6.13	3.17	3.35* (DiffT1,T2,T3 > T4)
Health care employer										
Yes	432	7.40	1.68	7.72	1.50	7.79	1.45	7.17	2.15	2.19
No	499	7.43	1.40	7.57	1.29	7.67	1.38	7.06	2.41	1.34
Employed at follow-up date										
Yes	218	7.61	1.19	7.74	1.17	8.11	1.05	7.50	2.08	1.75
No	712	7.36	1.60	7.61	1.45	7.62	1.49	6.81	2.33	3.10* (Diff T2,T3 > T4)
Exited										
Yes	804	7.41	1.53	7.60	1.42	7.75	1.37	7.28	1.95	2.35
No	126	7.46	1.47	7.85	1.20	7.67	1.62	3.53	5.69	5.43** (DiffT1,T2,T3 > T4)
HPOG completed										
Yes	595	7.41	1.51	7.63	1.43	7.75	1.38	7.66	1.46	1.80
No	335	7.43	1.54	7.65	1.33	7.68	1.52	5.84	3.14	5.89*** (DiffT1,T2,T3 > T4)
Hourly wage at follow-up						12.75 (6.08)				

NOTE: Time 1 (N = 403), Time 2 (N = 297), Time 3 (N = 182), Time 4 (N = 48).
SOURCE: Authors' calculations based on survey data; HPOG Performance Reporting System.

Figure 10.4 Structural Equation Model of Psychological and Economic Self-Sufficiency



NOTE: Standardized errors are in parentheses.
SOURCE: Authors' calculations based on survey data.

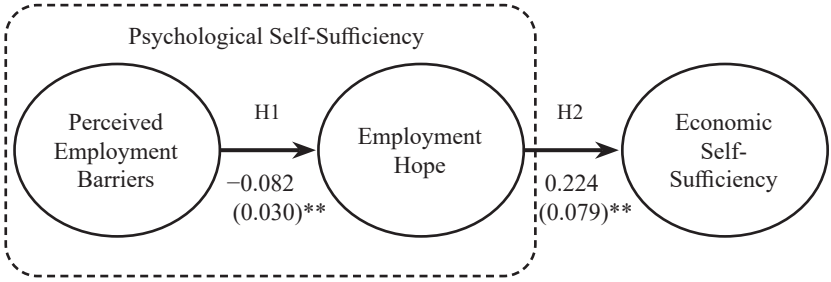
tion with EHS, and EHS was positively associated with ESS. The Sobel test result indicated that EHS is a full mediator ($z = -2.43$, $p = 0.014$).

As reported in Figures 10.5 and 10.6, the PSS theoretical model for Southland had fit indices that indicated a good fit to the data, $\chi^2 = 158.341$, $p = 0.000$, $df = 63$, CFI = 0.963, TLI = 0.955, RMSEA [95 percent CI] = 0.063 [0.051 − 0.075]. PEBS had a negative relationship with EHS, and EHS was positively associated with ESS. The PSS theoretical model for Gateway had fit indices that also indicated a good fit to the data, $\chi^2 = 198.941$, $p = 0.000$, $df = 63$, CFI = 0.953, TLI = 0.942, RMSEA [95 percent CI] = 0.069 [0.059 − 0.080]. PEBS had a negative relationship with EHS, and EHS was positively associated with ESS. The Sobel test result indicated that EHS is a full mediator (Southland: $z = -1.96$, $p = 0.049$ and Gateway: $z = -2.31$, $p = 0.020$).

Qualitative Results

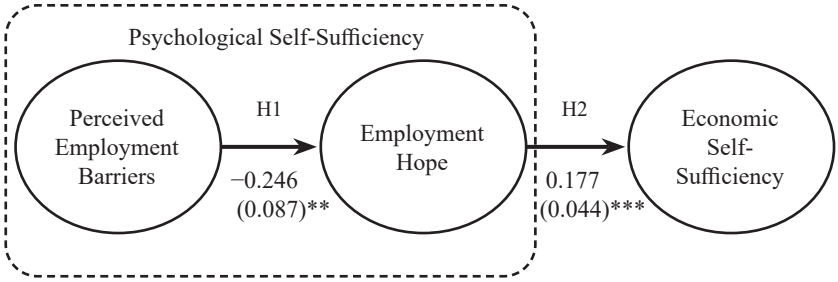
Based on focus groups at the two sites, students reported that the HPOG program has helped them overcome fear and build confidence and a sense of achievement in their pursuit of a health care career. They said the HPOG program was a once-in-a-lifetime opportunity that made a lasting impact on their lives. They underscored holistic staff support—characterized by accessibility, accountability, and encouragement—as a critical program component. Two categories emerged from the focus group with students: the meaning of the HPOG program and students'

Figure 10.5 Structural Equation Model of Psychological Self-Sufficiency and Economic Self-Sufficiency for Southland



NOTE: Standardized errors are in parentheses.
SOURCE: Authors' calculations based on survey data.

Figure 10.6 Structural Equation Model of Psychological Self-Sufficiency and Economic Self-Sufficiency for Gateway



NOTE: Standardized errors are in parentheses.
SOURCE: Authors' calculations based on survey data.

internal strengths. Other findings involved staff's perspectives on the HPOG program, and staff's perspectives on hope and barriers were categorized from the focus groups with program staff, tutors, and advisors. Lastly, the focus groups with employers identified self-confidence and motivation as qualities of good employees.

Across all focus groups, intrinsic support of the HPOG program providers—namely, instructors, tutors, program staff, and peer groups—appears to increase and sustain PSS at the individual student level.

The meaning of the HPOG program among students

Participants identified four subcategories with regard to the meaning of the HPOG program—overcoming fear and confidence building, sense of achievement, giving opportunity, and staff support. Notably, nontraditional, close support from instructors, tutors, and program staff was described to have three core aspects to the supportive relationship—accessible, accountable, and encouraging. Below are excerpts from the focus group:

1) Overcoming fear and confidence building

I'm always learning. Always. Always. So that helps, it helps being on the job now. Because you can incorporate new, you know, and different things, and . . . it takes away a lot of fear of the unknown. That's what this program has done. Whereas if I came into school just on my own, I always found a reason to back out. Or, you know, it was always something. Whereas now I feel more accountable . . . it just makes it a little easier.

2) Sense of achievement

Not only did it help me, you know, with learning more, and obviously, being able to be marketable at some point, but it helped me on a very personal level as well. I don't think I would have been able to achieve [as] much [as] I have without HPOG.

3) Giving opportunity

I personally felt like it's a second chance. When life gets in the way. Like, you know, sometimes life gets in the way, where, some of us are older, so we probably had that opportunity before but we didn't take advantage of it. So, I feel like this is a second chance . . . to do it right.

4) Staff support

I think HPOP is just overall just a good support system. Period.

[T]hey know who you are, they get back to you right away, you don't have to wait in a long line to talk to them, you don't have to you know, wait days for a return phone call.

I bet if I email her, she'll have an answer probably in about 15 minutes—I say, "Do she sit on there and watch the pot?"

I felt like they hold you accountable. Like that accountability means soooo much. Like, being young and you have some work

and school, and then some people have children, so when you meet with them they hold you accountable—what's your grade, how did you do on this test, and not only do they hold you accountable, but they encourage you at the same time.

I felt comfortable with her. I didn't feel rushed. She explained how to do my résumé.

Students' internal strengths

Confidence and hope were commented as internal strengths. In particular, participants described that hope is an inspiration to make a better life. Below is an excerpt from the focus group:

Well, I'm a whole lot more confident than I was before.

I think that hope is the beginning, is the start . . . it's the beginning, and then once that hope sets in, then you start believing, and then that's where it—and then you have that faith that you need to be able to feel that you can accomplish. After, after beginning with that hope.

Hope gives you that ambition to keep pushing forward. I think it's an inspiration, you know, to just make a better life for yourself in the future, have more income to be able to . . . afford to do what you want.

Only way you fail is not to try.

Staff's perspectives on the HPOG program

HPOG staff pointed out the positive impact of program structures on helping students. Below is an excerpt from the focus group:

We're giving them a process, a structure, a point of contact, and I think the students really embrace that—that from all the chaos in their background, they're coming to some place that actually has a plan to get from A to B. And I think that's kind of refreshing for some of the students to have that, for sometimes the very first time.

Furthermore, the function of peer support was constantly stressed. Togetherness and a cohort system were used to describe peer support in the HPOG program.

I think our class is really unique because we are together for six hours a day, and that's a lot of time to spend with people, and when we go to the nursing home we're working side by side, so we have

to have that trust in each other to do that, but, you know, it took her a little bit, but she softened up.

One of the things that HPOP has brought to the table is that this might be the very first team that they've been on that's been successful, and a cohort that's kind of moved through a program and been successful. And I think that translates very effectively into the workplace.

Staff also identified the important function of a sense of belonging in the program to create a pride among students.

I think for many of them, it's that first sense of a community that they're part of and that they're proud of. Some of them are not proud of the communities that they come to Gateway from, yet they're on our campus as a community, and I think there's a sense of pride in that.

Staff's perspectives on hope and barriers

Staff said that goal attainment led to self-efficacy, and then self-efficacy increased the level of hope. Also, hope was described to function to mitigate the barriers. Below is an excerpt from the focus group:

I'm so thankful for this program, and when they start off like that right at the beginning, you just see the hope in their eyes now, that they can get through school and don't have to worry about certain barriers that would, you know, hold them back.

Self-efficacy comes from achieving goals like that, it's a mindset that people are doing things for them, and now they're doing something for themselves, and that self-efficacy piece, I think, raises their level of hope.

Four aspects of perceived barriers emerged: No role model, childcare, health issues, and balance between work and study.

I'm hearing their stories. So I think, too, this is their norm, this is their life, they don't know what it'll be like to be in a different situation. 'Cause it's all they've ever seen. And so I think that, it's just scary for them. Or, my mom didn't work, my grandma didn't work, my—this person doesn't work, so they haven't had the role model, they don't know what it looks like to go, to go out every day, to go seek that job, or, and those types of things.

And just as far as if they have to retake courses, sometimes, it's just, you know there's some issues with their child care, it could be numerous things, and they had to drop a class or withdraw, or didn't pass for some reason.

So one of those barriers may be that they have to work during the same time that those classes are being held.

Employers' expectations on employees

Employers in the focus groups identified three qualities for successful employees: high level of confidence, independent working, and high level of motivation. Below is an excerpt from the focus group:

I'm in home health care, so we are really looking for people that we are gonna be able to trust to be working independently, so we look for people that have good self-confidence, that are going to present well when they go in the customer's home, and that we are gonna trust to do what they're assigned to do.

I've been really impressed lately [with someone whom] I just hired in the last couple of months, and she is so motivated and wants to continue learning. She's an undergrad, loves her jobs, and just comes to me, probably weekly, and says, "What else can I do, what more can I do? I wanna learn how to do this, I wanna learn how to do that." Which I love, rather than the nurse that just goes out, does her business, and goes home. The motivation factor for me is really the key.

FURTHER RESEARCH USING PSS

This project examines the dynamics of low-wage labor market and workforce development as their outcomes are affected by the psychological process of program participants. The study focused on the PSS process as a precursor to the ESS outcome; the PSS process embodies both the individual and structural conditions that limit one's ability to enter and stay active in the labor market for low-income and low-skilled individuals. PSS could be mistaken for its primary focus on the surface to be about changing the individual psychological motivation

as opposed to addressing the structural inequities that generate systemically limiting labor market conditions for low-income, low-skilled individuals (P. Hong 2013). Because PSS is a function of employment barriers both at the individual (i.e., health and mental health, child care, and soft skills) and structural (labor market exclusion and human capital) levels, it has the potential for suggesting a bottom-up program and policy recommendations (P. Hong et al. 2014).

First, findings on PSS increasing over time during program participation—both at Southland and Gateway—between Times 1 and 3 show that HPOG programming provides the support necessary to activate hope and minimize the perceived barriers. However, consistent findings on the significant decrease in the PSS score at Time 4 suggest HPOG program participants are vulnerable once they leave the supportive environment and enter into the precarious workplace norms, culture, and scheduling. PSS at Time 4 offers the opportunity to engage the employers to invest in the HPOG graduates during their onboarding process—so as to prevent PSS scores from decreasing among their new hires.

Second, associating PSS with HPOG program completion, employment, retention, and ESS could help promote program and policy development that fosters growth in PSS. This could help bridge the gap between perceived employment barriers and employment hope and have significant implications for how antipoverty policies are to be shaped in this country.

Third, because PSS affects ESS consistently in the Southland and Gateway samples, HPOG programs could be more intentional about investing in PSS in the program delivery. For instance, the use of support services by HPOG participants was associated with increase in PSS. However, this information says little about what quality service is standard for ensuring PSS to be strengthened during the course of program participation. Qualitative data support the importance of "soft touch" coaching and instruction, rules and boundaries of accountability, and peer support, all of which combine to provide a sense of belonging and make the journey all the more worthwhile. However, because there is no mechanism to invest in this seemingly central yet difficult to standardize relationship-based support system, it is seen as peripheral or left to the discretion of HPOG program specialists and support staff.

In response to this dilemma, at the request of HPOG partners and other community-based workforce development programs, the Loyola

University Chicago research team at the Center for Research on Self-Sufficiency (CROSS) developed a standardized curriculum aimed to empower the potential to achieve goals by way of channeling individual PSS toward the targeted goal—employment and career advancement. The CROSS research team named the program Transforming Impossible into Possible (TIP®) to represent its main focus on individual PSS as the process of transforming barriers (impossible) to hope (possible) (P. Hong 2016). Goal setting in TIP® does not use the traditional SMART (specific, measurable, attainable, relevant, and timely) goal method; rather, the nontraditional meaning-making and purpose-finding TIP 1 (true, intrinsic, purposeful) goal process, which is designed to reach the TIP 2 (tangible, intentional, practical) goal outcome. Delivered in a group setting, TIP® generates peer support and relationship-based strength to recognize and accept the barriers as such and activate hope to commit to actions that will overcome the barriers. TIP® could serve as a model to provide a standardized soft skills baseline on which HPOG programs could provide the training and education necessary to develop health care career skills and knowledge.

The partnership between two HPOG programs and Loyola University Chicago used PSS as an intermediate benchmark of success that leads to program completion, employment, and retention (P. Hong 2013). Other HPOG programs could consider using the Employment Hope Scale (EHS) and the Perceived Employment Barrier Scale (PEBS) to track PSS over time during program participation. Also, PSS to ESS can be adopted as the theory of change based on an empowerment perspective to frame program development and evaluation (P. Hong, Choi, and Key 2018).

PROGRAM AND POLICY IMPLICATIONS

At the program design stage, HPOG has been framed as an employment initiative for TANF participants and other low-income individuals. This approach, like other federal workforce development programs, leads to a set of endpoint outcomes where job placement is one critical metric for success and, in turn, the increase in employment wages (and decrease in TANF dependency) will generate self-sufficiency for the

participant. The correlation between training and employment makes intuitive sense, when policy evaluation relies on a narrower definition of workforce development where coordination between institutional stakeholders (government agencies, educational partners, and employers) is horizontally aligned (Jacobs and Hawley 2009, p. 2544).

The assessment of HPOG, however, is better informed when using a process-oriented outcomes framework that examines the employability of program participants (P. Hong 2013). This shift in emphasis suggests a broader definition of workforce development to reflect the "set of processes that govern the identification, recruitment, assessment and training of job seekers into employment as well as the maintenance and advancement of these persons in their careers that enhance self-sufficiency and revitalize the communities in which these individuals live" (Holland 2015, p. 55). Using this lens, therefore, suggests that the process of workforce development also requires vertical directionality that must be evaluated as hard-to-serve populations move closer toward accessing the labor market as their barriers are addressed with interventions of a strong safety net and social network.

But this vertical workforce development activity also calls upon other interventions from workforce entities to assist in addressing the direct and indirect barriers that job seekers face as they aim to penetrate the labor market (Iversen and Armstrong 2006). Direct barriers are those impediments to employment that are related to employment, either by job history, experience, or skills capacity, as well as those challenges that address the means to access and means to employment (e.g., lack of or a poorly written résumé, limited knowledge of where to look for job opportunities, or not having the skills that are required for an occupation/industry). Indirect barriers are more environmentally based that prevent or inhibit the job seeker to enter and sustain employment (e.g., transportation, internet access, poor housing), as well as those noncognitive challenges that relate to social or family support (e.g., lack of dependent care, limited or no medical insurance to address chronic health concerns) that are specific to an individual job seeker on a case-by-case basis.

For HPOG participants, the barriers to employability are not cognitive, as a stand-alone reason for poor labor force participation, nor are their impediments indicative of a participant's putative laziness (as perceived by the general public) or that job opportunities are not avail-

able in the labor markets where HPOG grants have been awarded. This study points to a previously underreported finding about the supply side of the labor market, which is that HPOG participants often face deficits of PSS as a process, which yields to lack of hope and motivation to look for and enter work in the face of perceived barriers. The other yet unexplored demand-side disconnect has to do with the lack of investment by health care employers in a PSS-focused organizational culture to onboard and stabilize the newly hired HPOG and other entry-level employees (P. Hong 2019).

The perspective of implementation research here is useful to examine how horizontal and vertical workforce development policies are played out in the field. When juxtaposed against a horizontal workforce development evaluation methodology, the efforts of case managers for harder to serve populations will have job placement numbers predictably lower than initial project goals. These disappointing results, which often lead some critics to dismiss workforce development programs at large (as they see the public workforce system as designed to support a demand-driven pipeline of new job entrants for industry), are the result of two key factors. First, case managers are not well equipped in the assessment of PSS among job seekers, so referrals to employers will be made only when the case managers "cream" those job candidates who are closest to the labor market.

Second, the overemphasis of a demand-driven focus and incentives behind the public workforce system competes with a dual-customer approach: employment services are now considered universal, as the distinction between "core" and "intensive" services, as existing under the Workforce Investment Act of 1998, no longer exists (Holland 2016). These services are collapsed into career services without any requirement for sequencing of services under the Workforce Innovation and Opportunity Act of 2014, which supersedes the Workforce Investment Act of 1998.

In order to fill these gaps in current workforce development, the methodological approach deployed in this chapter to explore the vertical workforce development process has the potential to present PSS as the metrics for employability. PSS can be used as a conceptual and empirical bridge to improve the efficiency of workforce development programs to connect the job seeker with the other members of the workforce system. The success of workforce development under this

alternative construct suggests that when more barriers are removed, job seekers move closer toward labor market participation, and that the role for government in workforce development (whether directly funded or channeled to nonprofit organizations) is to act as the facilitator of this employability by offering comprehensive services.

To this end, a probabilistic evaluation model might generate an algorithm with the results needed to demonstrate the effectiveness of addressing barriers and movement toward greater hope—by which PSS is a good process metric for capturing employability or job-readiness (P. Hong 2013). In turn, this employability index might be effectively deployed by case managers, who can then better assess and triage harder-to-serve populations in their caseloads. This vertical development approach can demonstrate how HPOG proved to be an innovative model of establishing a career pathway for TANF participants to move toward employability—while advancing their PSS—in a high-growth economic sector. HPOG, therefore, represents a pioneering effort to demonstrate the interrelationship between economic development, workforce development, and antipoverty policies in practice, even if they are often housed in silos by traditional evaluation research.

CONCLUSION

PSS promises to nurture positive characteristics, such as resilience, grit, sacrifice, and resolve as low-income job seekers strive for individualized employment goals (P. Hong 2016; P. Hong, Choi, and Key 2018; P. Hong, Kim, et al., forthcoming; R. Hong and P. Hong, forthcoming; R. Hong, et al. 2019; P. Hong, R. Hong, et al., forthcoming). These noncognitive behaviors reflect the inner strengths that help withstand and overcome employment barriers (Heckman 2012–13). The transformative decision to partake in this enduring process is rooted in the sense of purpose—the desire and effort that individuals put forth to accomplish their goals, make significant contributions to society, and maintain a meaningful existence. Psychological transformation has been the missing link in workforce development research and practice. This human-centered approach to building character, identity, motivation, and resilience is the key to sustaining long-term successful career pathways.

Our current research on low-income job seekers finds that the successful path to employment and retention requires these potential employees to tap into their deep-seated purpose as they embark on the journey toward their employment goals. This purpose can be contextualized differently for each individual but is unequivocally grounded in what we conceptualize as PSS, which comprises perceived barriers and hope (P. Hong 2013). Employment hope can serve as the motivating purpose toward one's goals despite many rejections and barriers in the low-wage labor market (P. Hong and Choi 2017). Developing employment hope is similar to the process of acquiring "possible selves" as goal-oriented road maps (Oyserman et al. 2004).

In workforce development, "nudging" (Thaler and Sunstein 2008) to empower individuals as "hoping" agents is a fairly common practice. However, this process is hardly considered central to the change that impacts the decisions and actions of individuals. Employment and career specialists often provide employment-hope-based coaching—a method of noncognitive nudging—but only as an add-on to other well-regarded, deliberate programs such as human capital development and labor force attachment approaches. The purpose-driven, noncognitive nudging has received relatively less attention compared to these dominant paradigms and subsequently has not been measured or evaluated in light of the tangible outcomes. Therefore, we challenge investigators to further examine the purpose-driven PSS as it contributes to the mainstream discourse on workforce development, career pathways, employer engagement, and system change at large.

References

Anderson, Theresa, Pamela Loprest, Teresa Derrick-Mills, Lauren Eyster, Elaine Morley, and Alan Werner. 2014. *Health Profession Opportunity Grants: Year Two Annual Report (2011–2012).* OPRE Report No. 2014-03. Washington, DC: Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services: Abt Associates and the Urban Institute.

Avey, James B., Rebecca Reichard, Fred Luthans, and Ketan Mhatre. 2011. "Meta-Analysis of the Impact of Positive Psychological Capital on Employee Attitudes, Behaviors, and Performance." *Human Resource Development Quarterly* 22(2): 127–152.

Babyak, Michael A., C. R. Snyder, and Lauren Yoshinobu. 1993. "Psychometric Properties of the Hope Scale: A Confirmatory Factor Analysis." *Journal of Research in Personality* 27(2): 154–169.

Beck, Aaron T., Arlene Weissman, David Lester, and Larry Trexler. 1974. "The Measurement of Pessimism: The Hopelessness Scale." *Journal of Consulting and Clinical Psychology* 42(6): 861–865.

Betz, Nancy E., and Louise F. Fitzgerald. 1987. *The Career Psychology of Women*. Cambridge, MA: Academic Press.

Cooney, Kate. 2006. "Mothers First, Not Work First: Listening to Welfare Clients in Job Training." *Qualitative Social Work* 5(2): 217–235.

Diemer, Matthew A., and David L. Blustein. 2007. "Vocational Hope and Vocational Identity: Urban Adolescents' Career Development." *Journal of Career Assessment* 15(1): 98–118.

Duckworth, Angela Lee, Heidi Grant, Benjamin Loew, Gabriele Oettingen, and Peter M. Gollwitzer. 2011. "Self-Regulation Strategies Improve Self-Discipline in Adolescents: Benefits of Mental Contrasting and Implementation Intentions." *Educational Psychology* 31: 17–26.

Farmer, Helen S. 1985. "Model of Career and Achievement Motivation for Women and Men." *Journal of Counseling Psychology* 32(3): 363–390.

Gowdy, Elizabeth A., and Sue Pearlmutter. 1993. "Economic Self-Sufficiency: It's Not Just Money." *Affilia* 8(4): 368–387.

Hackett, Gail, and Nancy Betz. 1981. "A Self-Efficacy Approach to the Career Development of Women." *Journal of Vocational Behavior* 18(3): 326–339.

Harvey, Vorricia, Philip Young P. Hong, and Kweli Kwaza. 2010. "Shared Reflections on Transformative Practice: From Challenges to Client Empowerment in Workforce Development." *Reflections: Narratives of Professional Helping* 16(2): 70–78.

Heckman, James J. 2012–13. "Hard Evidence on Soft Skills." *Focus* 29(2): 3–8.

Herth, Kaye Ann. 1991. "Development and Refinement of an Instrument to Measure Hope." *Scholarly Inquiry for Nursing Practice* 5(1): 39–51.

Holland, Brian. 2015. "A Workforce Development Systems Model for Unemployed Job Seekers." *Journal of Adult and Continuing Education* 21(2): 55–76.

———. 2016. "Both Sides Now: Toward the Dual Customer Approach under the Workforce Innovation and Opportunity Act in the United States." *Local Economy* 31(3): 424–441.

Hong, Philip Young P. 2013. "Toward a Client-Centered Benchmark for Self-Sufficiency: Evaluating the 'Process' of Becoming Job Ready." *Journal of Community Practice* 21: 356–378.

———. 2016. "Transforming Impossible into Possible (TIP®): A Bottom-Up

Practice in Workforce Development for Low-Income Jobseekers." *Environment and Social Psychology* 1(2): 93–104.

———. 2019. "Transforming Opportunities into Productivity (TOP): A System-Change Model for Employer/Employee Engagement." Paper presented at the Network for Social Work Management Conference, held in Chicago, May 29–June 1.

Hong, Philip Young P., and Sangmi Choi. 2013. "The Employment Hope Scale: Measuring an Empowerment Pathway to Employment Success." *International Journal of Psychology Research* 8(3): 173–189.

———. 2017. "Measuring Transformative Workforce Activation: Validation of the Comprehensive Employment Hope Scale." In *Transforming Society: Strategies for Social Development in Singapore and around the World*, Ngoh Tiong Tan, ed. New York: Routledge, pp. 81–96.

Hong, Philip Young P., Sangmi Choi, and Whitney Key. 2018. "Psychological Self-Sufficiency: A Bottom-Up Theory of Change in Workforce Development." *Social Work Research* 41(1): 22–32.

Hong, Philip Young P., Sangmi Choi, and Joshua R. Polanin. 2014. "A Multi-Sample Confirmatory Factor Analysis of the Short Employment Hope Scale (EHS-14)." *Journal of Social Service Research* 40: 339–352.

Hong, Philip Young P., Rana Hong, Dara Lewis, and Dianne Williams. Forthcoming. "Pathway of Employment from Uncovering Barriers to Discovering Hope: Non-Traditional, Student-Centered, Relationship-Based Approach." Families in Society.

Hong, Philip Young P., Caleb Kim, Rana Hong, Jang Ho Park, and Dara Lewis. Forthcoming. "Examining Psychological Self-Sufficiency among African-American Low-Income Jobseekers in a Health Profession Career Pathway Program." Social Work in Health Care.

Hong, Philip Young P., Joshua R. Polanin, Whitney Key, and Sangmi Choi. 2014. "Development of the Perceived Employment Barrier Scale (PEBS): Measuring Psychological Self-Sufficiency." *Journal of Community Psychology* 42: 689–706.

Hong, Philip Young P., Joshua R. Polanin, and Terri D. Pigott. 2012. "Validation of the Employment Hope Scale: Measuring Psychological Self-Sufficiency among Low-Income Jobseekers." *Research on Social Work Practice* 22(3): 323–332.

Hong, Philip Young P., Vamadu A. Sheriff, and Sandra R. Naeger. 2009. "A Bottom-Up Definition of Self-Sufficiency: Voices from Low-Income Jobseekers." *Qualitative Social Work* 8(3): 357–376.

Hong, Philip Young P., In Han Song, Sangmi Choi, and Jang Ho Park. 2016. "A Cross-National Validation of the Employment Hope Scale in the U.S. and South Korea." *Social Work Research* 40(1): 41–51.

Hong, Philip Young P., In Han Song, Sangmi Choi, and Jang Ho Park. 2018. "Comparison of Perceived Employment Barriers among Low-Income Jobseekers in the United States and South Korea." *International Social Work* 61(1): 23–39.

Hong, Rana, and Philip Young P. Hong. Forthcoming. "Neurobiological Core Content in the Research-Supported Transforming Impossible into Possible (TIP®) Program Model." *Journal of Evidence-Based Social Work*.

Hong, Rana, Terry Northcut, Marcia Spira, and Philip Young P. Hong. 2019. "Facilitating Transformation in Workforce Training: Utilizing Clinical Theory to Understand Psychological Self-Sufficiency." *Smith College Studies in Social Work* 89(1): 66–82.

Iversen, Robert Rehner, and Annie Laurie Armstrong. 2006. *Jobs Aren't Enough: Toward a New Economic Mobility for Low-Income Families.* Philadelphia: Temple University Press.

Jacobs, Ronald L., and Joshua D. Hawley. 2009. "The Emergence of 'Workforce Development': Definition, Conceptual Boundaries and Implications." In *International Handbook of Education for the Changing World of Work: Bridging Academic and Vocational Learning*, Rupert Maclean and David Wilson, eds. Springer Science & Business Media, pp. 2537–2552.

Juntunen, Cindy L., and Kara Brita Wettersten. 2006. "Work Hope: Development and Initial Validation of a Measure." *Journal of Counseling Psychology* 53(1): 94–106.

Lent, Robert W., Steven D. Brown, and Gail Hackett. 1994. "Toward a Unifying Social Cognitive Theory of Career and Academic Interest, Choice, and Performance." *Journal of Vocational Behavior* 45(1): 79–122.

Lent, Robert W., Steven D. Brown, and Gail Hackett. "Social Cognitive Career Theory." In *Career Choice and Development*, 4th ed., Duane Brown, ed. San Francisco: Jossey-Bass, pp. 255–311.

Lincoln, Yvonna, and Egon G. Guba. 1985. *Naturalistic Inquiry.* Thousand Oaks, CA: Sage.

Luthans, Fred. 2002a. "The Need for and Meaning of Positive Organizational Behavior." *Journal of Organizational Behavior* 23(6): 695–706.

———. 2002b. "Positive Organizational Behavior: Developing and Managing Psychological Strengths." *Academy of Management Executive* 16(1): 57–72.

Luthans, Fred, Bruce J. Avolio, James B. Avey, and Steven M. Norman. 2007. "Positive Psychological Capital: Measurement and Relationship with Performance and Satisfaction." *Personnel Psychology* 60(3): 541–572.

Luthans, Fred, Carolyn M. Youssef, and Bruce J. Avolio. 2007. *Psychological Capital: Developing the Human Competitive Edge*. New York: Oxford University Press.

March, James G. 1994. *Primer on Decision Making: How Decisions Happen*. New York: Simon and Schuster.

March, James G., and Johan P. Olsen. 2011. "The Logic of Appropriateness." *Oxford Handbook of Political Science*, Robert E. Goodin, ed. Oxford: Oxford University Press, pp. 479–497.

McWhirter, Ellen Hawley, Gail Hackett, and Deborah L. Bandalos. 1998. "A Causal Model of the Educational Plans and Career Expectations of Mexican American High School Girls." *Journal of Counseling Psychology* 45(2): 166–181.

Oettingen, Gabrielle. 2000. "Expectancy Effects on Behavior Depend on Self-Regulatory Thought." *Social Cognition* 18(2): 101–129.

Oettingen, Gabrielle, Hyeon-ju Pak, and Karoline Schnetter. 2001. "Self-Regulation of Goal-Setting: Turning Free Fantasies about the Future into Binding Goals." *Journal of Personality and Social Psychology* 80(5): 736–753.

Oyserman, Daphna, Deborah Bybee, Kathy Terry, and Tamera Hart-Hohnson. 2004. "Possible Selves as Roadmaps." *Journal of Research in Personality* 38: 130–149.

Schreier, Margrit. 2012. *Qualitative Content Analysis in Practice*. London: Sage.

Seligman, Martin E. P. 2002. "Positive Psychology, Positive Prevention, and Positive Therapy." In *Handbook of Positive Psychology*, C. R. Snyder and Shane J. Lopez, eds. New York: Oxford University Press, pp. 3–12.

Snyder, C. R., Cheri Harris, John R. Anderson, Sharon A. Holleran, Lori M. Irving, Sandra T. Sigmon, Lauren Yoshinobu, June Gibb, Charyle Langelle, and Pat Harney. 1991. "The Will and the Ways: Development and Validation of an Individual-Differences Measure of Hope." *Journal of Personality and Social Psychology* 60(4): 570–585.

Thaler, Richard H., and Cass R. Sunstein. 2008. *Nudge: Improving Decisions about Health, Wealth, and Happiness.* New Haven, CT: Yale University Press.

Yakushko, Oksana, and Olga Sokolova. 2010. "Work Hope and Influences of the Career Development among Ukrainian College Students." *Journal of Career Development* 36(4): 310–323.