
Revealing talent: informal skills intermediation as an emergent pathway to immigrant labor market incorporation

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Abstract. In today's fast-changing urban labor markets, skill formation is crucial to long-term income security and occupational advancement. While most studies emphasize the skills that workers acquire through formal training and educational programs, a less understood but equally important concern is how workers acquire skills through informal means and then how they demonstrate and defend skills for which they have no formal credentials. This is especially important when considering the labor market participation of less-educated immigrant workers with limited formal training and credentialing support. How do these immigrant workers develop, demonstrate, and defend their skills in receiving community labor markets? What factors facilitate or hinder these processes? How might skill formation be institutionalized in order to enhance immigrant labor market incorporation? In this paper we examine these questions through a study of Latino immigrant workers in North Carolina's construction industry. In particular, we focus on the role that immigrant skills intermediation, and the informal learning processes it supports, play in the formation of emergent pathways for developing, demonstrating, and defending immigrant talent in mainstream labor markets. We conclude that informal intermediation by established immigrant workers can facilitate immigrant skill development and demonstration in mainstream labor markets and thus provides an important pathway for advancing the labor market status of less-educated immigrant workers.

Introduction

In today's fluid and fast-changing urban labor markets, skill formation is crucial to long-term income security and occupational advancement. Yet, while most studies emphasize the skills that workers acquire through formal training and educational programs, a less understood but equally important concern for economic security is how workers acquire skills through informal means and then how they demonstrate and defend skills for which they have no formal credentials. This question is especially important when considering the labor market participation of less-educated immigrant workers. Their opportunities to develop skills through informal channels can be especially important given their limited access to formal training and credentialing programs. But how can they demonstrate and defend informally learned skills, particularly as they enter mainstream labor markets? Related to this, how are they able to overcome immigrant-specific obstacles to skills development and demonstration in these markets?

In this paper we examine these questions through a study of North Carolina's construction industry—an industry which now offers considerable employment opportunities to Latino immigrants with low levels of formal education (Kasarda and Johnson, 2006). According to the 2005 US Census, one in three construction jobs in the state were filled by Latino immigrants. In certain construction occupations—including brick

masonry, drywall, and wood framing—Latinos have been especially visible, accounting for 70% of the state's urban workforce in those occupations in 2006 (Craver, 2006). Furthermore, given limited barriers to entry, Latino immigrants have made significant inroads into North Carolina's large-scale commercial and residential construction markets. The transition to North Carolina's 'mainstream' construction labor market by Latino immigrants has not been without its challenges. As recently as 2006, when the state's construction industry was still strong, many immigrant workers remained underemployed, despite prior construction experience and wide-ranging construction knowledge. Still, pathways for occupational advancement have emerged for some immigrant workers in the state. These pathways reflect complex social interactions and processes through which immigrant construction workers first learn skills and then demonstrate and defend individual and collective knowledge to mostly native-born employers and supervisors. As such, these emergent pathways not only contribute to better skills matching in this industry, but also provide a policy opening for improved immigrant and worker advocacy.

We draw on interviews with immigrant workers and their employers to explore the development of three emergent pathways for skill development and demonstration. First, we document the mediating role of established immigrant workers in helping fellow immigrant job seekers and workers to demonstrate and defend the skills they bring to the job; second, we document the mentoring support provided by established immigrant workers, including use of common training practices in Latin American sending communities; and, finally, we look at the use of informal side projects by established immigrants to further develop and deepen the coethnic skill base. In exploring each of these upskilling contributions, we challenge the assumption that immigrant social networks narrowly support skill development and skill-based advancement in isolated ethnic enclaves. Instead, we argue that informal intermediation by established immigrant workers can facilitate immigrant skill development and demonstration in mainstream labor markets and thus provides an important pathway for advancing the labor market status of less-educated immigrant workers.

Immigrant skills development and intermediation

Skills development plays a central role in discussions about immigrant mobility. Economists have long argued that shifting US immigration patterns from European to Latin American sending countries have resulted in lower levels of immigrant skill, and thus help to explain the growing income gap between foreign and native-born US workers in recent decades (Smith and Edmonston, 1997). Ruling out arguments of increased employer discrimination, these studies focus instead on lower levels of education among Latino immigrant populations (Borjas, 1995; Borjas and Katz, 2005; Chiswick, 1986; Smith and Edmonston, 1997). As a result, Latino immigrant workers typically secure employment in industries that have fewer skills requirements and thus receive less pay.

The assumed link between formal education, skills, and earnings potential, however, has been challenged by recent research that recognizes underemployment of immigrant workers (Batalova et al, 2008; Reitz, 2005). Rather than reflecting skills and educational credentials, immigrant earnings are often affected by legal status and access to work-related legal protection (Catanzarite and Bernabe Aguilera, 2002; Iskander, 2007; Ontiveros, 2008; Philips and Massey, 1999; Wells, 1996). Additionally, wage rates and occupational status can be greatly influenced by the specific networks in which immigrants are embedded (Bates, 2008; Cornelius, 1998). These can include informal social and employment networks, as well as formal immigrant advocacy and community-based supports (Milkman, 2000; 2006; Waldinger et al, 1996).

Underemployment and related labor market challenges facing immigrants with high levels of formal education have been well documented by economic development and immigration scholars (Batalova and Fix, 2008; Florida, 2004; Reitz, 2005; Saxenian, 2006). This realization has led human resource agencies in some immigrant-heavy cities in North America to institutionalize brokering services in order to help educated immigrant job seekers showcase their existing qualifications and educational credentials (Lowe and Gertler, 2009). By demonstrating their skills through formal credentialing programs, educated immigrants are often able to secure high-ranking positions in receiving community labor markets.

Less understood, however, are the supports for skills development and demonstration available to and utilized by less-educated Latino immigrants. Yet, precisely because these workers lack formal and easily transferable credentials, supports of this type are often essential for their occupational advancement and social mobility. Efforts to extend and formalize this kind of assistance therefore require a better understanding of the emergent pathways through which less-educated immigrants develop and defend their talent.

This paper sheds light on these pathways through a study of immigrant construction workers. The US construction industry is an example of an industry where opportunities and obstacles to immigrant skills demonstration and development clearly exist. Not only does this industry employ large numbers of less-educated Latino immigrants (Pew Hispanic Center, 2007), but also construction skills are typically learned through hands-on experience and workplace interactions, rather than through formal training or classroom instruction (Pathirage et al, 2007). In fact, because of the centrality of on-the-job learning to the construction industry, training programs in the building trades typically incorporate apprenticeship models that promote workplace skills development (Applebaum, 1999; Riemer, 1979; Silver, 1986). As apprentices, workers develop skills on the job through structured guidance from a qualified journeyman. This learning process is then rewarded through an expansion of work responsibilities and industry-sanctioned pay increases that reflect additional work experience.

For the most part, however, immigrant construction workers in the United States are excluded from formal apprenticeships and related training and wage-setting programs (Bates, 2008; Milkman and Wong, 2000; Waldinger and Bailey, 1991). As such, it is often harder for them to develop and demonstrate their skills relative to native-born workers. Still, skills-based development and advancement opportunities do arise for some immigrant construction workers (Bates, 2008; Chavez et al, 2008; Hagan et al, 2008), which warrants a closer examination of the particular ways in which Latino immigrants develop and demonstrate skill.

Generally speaking, attempts to explain immigrant advancement in industries such as construction that require little formal education focus on language capabilities—that is, the ability of immigrant workers to effectively communicate with English-speaking employers and supervisors (Chiswick and Miller, 1995; McManus, 1985). Recent research, however, calls into question this presumed link (Waldinger and Lichter, 2003). For the US construction industry, in particular, language deficiencies are not found to be a major obstacle to Latino immigrant occupational advancement (Chavez et al, 2008). In place of English, Chavez et al (2008) argue that immigrant advancement opportunities reflect a high concentration of coethnics in construction—that is, a significant presence of Latino immigrant workers, supervisors, and, to a lesser extent, employers. According to this logic, Latino construction workers are able to draw on their relationships with other immigrants in the industry in order to “adjust to new labor market conditions and acquire human capital that can be applied to mainstream labor markets” (Chavez et al, 2008, page 26). These coethnic connections also help to

diminish the relative importance of English-language skills given that assistance is typically provided by fellow Spanish-speaking immigrants.

Coethnic support for locating and securing jobs is well documented across a diverse set of immigrant-heavy industries (Cornelius, 1998; Portes and Bach, 1985; Wells, 1996). Coethnics have also played a role in immigrant skills demonstration and development, especially in industries that have few formal educational requirements (Hagan, 1998; Light, 1972; Ramirez and Hondagneu-Sotelo, 2009). In this context, social networks reinforce Manwaring's (1984) theory of the extended internal labor market. That is to say, employers tap coethnic networks in order to recruit workers that will fit in well within existing 'workgroups' and in the process, gain access to training supports internal to the firm (Manwaring, 1984). Waldinger's ethnographic account of New York's apparel-making industry helps to illustrate this contribution (Bailey and Waldinger, 1991; Waldinger, 1986). In discussing Chinese and Dominican networks in particular, Waldinger and coauthor Bailey note that

"ties between (immigrant) owners and (immigrant) newcomers provide the information that both sides need for decisions about hiring and training... Immigrant workers who acquire skills become part of the labor force that immigrant employers share as a group" (Bailey and Waldinger, 1991, page 440).

Interestingly, however, Bailey and Waldinger (1991), and others studying ethnic enclaves (Light, 1972), anticipate that support for coethnic skill formation will dissipate once labor market boundaries extend outside the ethnic enclave and, specifically, where employers and workers no longer share the same ethnic identity. Bailey and Waldinger (1991) in particular theorize that it will become difficult, if not impossible, for native employers to "discern accurately the characteristics of both (immigrant) incumbent workers and (immigrant) applicants" (page 436). They therefore expect the adoption of more formal mechanisms for immigrant skill development and assessment by non-immigrant employers. This is due to anticipated social conflicts that can undermine an employer's willingness to 'trust' informal hiring and training practices and 'implicit' employment contracts.

While certainly important in recognizing potential sources of workplace conflict, this argument ignores the possibility for dynamic and evolving relationships between immigrant workers and native employers or employers from different ethnic backgrounds (Johnson-Webb, 2002; Wells, 1996). As immigrants establish themselves in diverse labor markets they not only maintain a foothold in traditional ethnic networks, but also forge new relationships with nonethnic employers, supervisors, and coworkers, which can subsequently affect their status in mainstream labor markets. Existing theories of ethnic and immigrant social networks are not well positioned to capture these broader social connections and interactions as they often assume conflict-ridden relationships outside these networks (Bailey and Waldinger, 1991; Portes and Bach, 1985). As a result they fail to recognize the ability of more established immigrants to actively promote and defend the skills of fellow immigrants by brokering exchanges between coethnic job seekers and native and non-coethnic employers and supervisors. A more robust concept is therefore needed that captures these nested social relations and, more specifically, the processes that allow immigrants to organize and combine different social spheres as a means to promote new pathways for immigrant skill development and skills-based advancement.

Established immigrants, in particular, may be in a position to make hiring recommendations to native employers on the basis of skill and also to help immigrant newcomers acquire specialized skills through on-the-job training and mentoring (Johnson-Webb, 2002). In this regard they are no longer just participants in ethnic networks, but also act as skills *intermediaries*. That is to say, they mediate exchanges

between employers and job seekers and in the process influence how immigrant newcomers are perceived and received in mainstream labor markets and whether their incorporation is based on and further supports skill development. Some immigration scholars treat *recruiter* and *intermediary* as synonymous terms (Bailey and Waldinger, 1991; Waldinger, 1986). By doing so, however, they overlook important differences in recruiter behavior and, specifically, the contribution some recruiters play in immigrant skill development. In some cases, immigrant recruiters are in a position to influence not only which job seekers are offered employment opportunities and on what basis, but also what types of training they can access. Rather than indiscriminately recruit for a job opening, they use their industry position and social connections to match up particular coethnics with jobs that complement and build on individual skills and strengths. In this regard they function as matchmaker and screener. Furthermore, their influence extends well beyond the boundaries of the ethnic economy, affecting skill-based hiring and training decisions in mainstream labor markets as well.

Recent studies of changing work environments point to the growing importance of intermediation support for helping less-educated workers adjust to shifting labor market conditions (Benner, 2003; Giloth, 2004; Lautsch and Osterman, 1998; Lowe, 2007). Intermediation support can vary with respect to skill development from staffing agencies that help workers feature their skills and work experience in order to secure both temporary and permanent jobs to community college programs that enable job seekers to update their skills in the face of rapidly changing technology and work practices (Benner, 2003). These efforts qualify as intermediation support because they provide skills-matching assistance to both the job seeker and the employer. From the employers' perspective they help to reveal transferable skills, experiences, and qualifications that might be hidden or obscured by a job seeker's formal educational credentials (Fitzgerald, 2004; Lowe, 2007). As more US firms outsource work and hire freelance, temporary, or project-specific personnel (Peck and Theodore, 1998), firms increasingly rely on intermediaries to articulate their skill needs and to identify and recruit qualified workers. These services, in turn, help job seekers lower risk by providing updated information about industry skill requirements and changing employment practices (Benner, 2003).

While most studies of intermediation support focus on their use by native-born populations, especially in technology-intensive industries (Benner, 2003; Lowe, 2007), there is growing recognition that intermediation may be especially important for immigrant workers in the United States (Fine, 2006; Osterman, 2003). Not only do immigrant workers benefit from mediated assistance when negotiating the terms of employment, but also intermediaries support skill development through language courses, technical training, and credentialing services. Research in this area has primarily focused on the provision of formal intermediation services by established immigrant advocacy organizations (Fine, 2006; Martin et al, 2007). Less understood, however, are the informal and emergent skills intermediation supports that immigrant workers receive from fellow immigrant workers, especially those already established in mainstream labor markets. Our study shows that, for new immigrant destinations such as North Carolina, access to informal intermediation supports is key to immigrant labor market incorporation and in turn, can facilitate the development of more formalized industry and institutional support.

To substantiate this argument we turn next to the case of North Carolina, examining the skill sets Latino immigrants bring to the state's urban construction labor markets and the factors that explain why they initially get overlooked by native construction employers. We then turn to a discussion of the emergent pathways to

skills demonstration and development that are used by established immigrants to demonstrate, promote, and develop coethnic talent. In considering the growing labor market influence of informal skills intermediation, we also examine early efforts by employers to build on and embrace training practices initially developed by immigrant intermediaries. Still, we recognize the potential vulnerability of these practices in light of rapidly changing economic circumstances and the need this might create for institutionalized intermediation support.

Research design

In this paper we concentrate primarily on the Latino immigrant experience in the construction industry in the Research Triangle Park area of North Carolina. A new immigrant gateway, this three-county urban region of North Carolina had close to 76 000 Latino residents in 2005, the majority of whom (70%) were Mexican born. This represents a 44% increase in the Latino population since 2000, with even larger increases in the Latino and Mexican-born population occurring between 1995 and 2000. Some of the region's newcomers are also established migrants, having moved from other places in the United States such as California and Texas. The influx of Latino immigrants has changed the urban landscape of the state significantly in recent years. A number of local industries in addition to construction—like restaurants, food processing, and retail—have come to depend heavily on Latino immigrant labor.

To study immigrant skills demonstration and development, we rely primarily on in-depth interviews with three sets of actors: Latino immigrant construction workers; their employers and supervisors; and institutional actors, including key representatives from construction industry associations and building trades unions, training centers, and immigrant advocacy organizations. Interviews with immigrant workers focus on their employment history and the social and cognitive processes through which they develop and reveal construction skills. By including interviews with employers of immigrant workers, we are able to also understand the processes through which immigrant skills are recognized, utilized, and augmented. Furthermore, interviews with institutional actors allow us to determine the degree to which immigrant workers are included or excluded from formal training and credentialing programs. In total, seventy-five immigrant interviews were conducted and analyzed for this project during a sixteen-month period in 2007–08.⁽¹⁾ In addition, twenty interviews were conducted with employers of immigrant workers, with construction industry training experts and high-ranking native-born construction workers. In addition, we developed a comprehensive list of construction training supports in the state and gathered information on immigrant participation in each program. This information, combined with expert interviews, allowed us to compare immigrant skill-development opportunities with traditional pathways available to North Carolina's native workforce.

⁽¹⁾ We contacted immigrant construction workers through the following access channels: restaurants and food stands near construction sites, laundromats, day labor sites, and immigrant advocacy organizations. Our structured interviews lasted approximately one hour and, when possible, were digitally recorded. As part of our human ethics review process, we agreed to allow interviewees to decide whether or not to digitally record the interview. Some immigrants, given their undocumented status, were uncomfortable with a recorded record of the interview. In these cases we took extensive written notes and wrote up detailed interview summaries. We coded and analyzed detailed written summaries of each interview using ATLAS.ti. This allowed us to identify similar pathways to upskilling.

The immigrant experience in North Carolina

Recent research on immigrant labor market incorporation in North Carolina's construction industry has emphasized the economic gains for the state in lower labor costs, and thus cheaper goods and services (Kasarda and Johnson, 2006). This characterization, however, underestimates the contribution that immigrant workers make to this industry as a result of their existing skill sets and those they acquire on the job. The prevailing labor-saving perspective also overlooks the obstacles and opportunities to skills development that immigrants may face and that act to differentiate them from the state's native-born construction workers.

Our interviews indicate that Latino immigrants often arrive in North Carolina with considerable construction industry experience and know-how. Some arrive with prior work experience in states such as California or Texas with well-established immigrant communities. Others, particularly those arriving here from Mexico, first develop their construction skills within their hometowns or sending communities. What is also noteworthy is the breadth of construction knowledge acquired in sending communities, especially in Mexico (Hagan et al, 2008; also see Iskander et al, 2009). Still, many of these skilled workers face unique obstacles in North Carolina that make it more difficult for them to demonstrate, defend, and apply these skills in a manner that facilitates occupational advancement.

One major obstacle that we have identified relates to limited immigrant access to formal training and credentialing programs, especially state-funded apprenticeship programs. Labor unions play a limited role in vocational training in North Carolina's construction industry. This is due to North Carolina's extremely limited labor union coverage. In fact, at 2% North Carolina ranks last among fifty states for construction union density (Philips, 2003). Instead, vocational training support is provided by state-funded community college programs and privately funded apprenticeships that are sponsored by construction industry associations in the state. These programs not only provide native-born workers in the state with structured training, but also link wage increases to the skill formation process itself. For the most part, however, Latino immigrants are excluded from North Carolina's formal training system due to strict residency and English proficiency requirements. These requirements also make it especially difficult for undocumented immigrants to receive formal training assistance.⁽²⁾ As a result of this exclusion, immigrant skill development is informal and typically self-guided. In contrast to the native-born apprenticeship that institutionalizes social and interactive skills development, the majority of immigrant workers interviewed for this project learn in a solitary and isolated manner and with limited employer or supervisor guidance and feedback.

This brings us to a second constraint to immigrant skills demonstration identified through our interviews—namely, the informal manner in which immigrant workers are recruited and supervised. As in other immigrant-heavy industries, social networks are key to worker recruitment in North Carolina's construction industry. Immigrant construction workers often secure jobs with the help of fellow immigrants, especially family members or close friends. Interestingly, some employers reproduce these same networks within the workplace as a way to better access the region's expanding immigrant workforce. Construction employers rely on immigrant networks for hiring new workers, asking existing employees to identify and recommend a family member or friend in need of work. But they also use these networks to develop additional organizational layers within the firm, asking immigrant workers to oversee and direct the work of others.

⁽²⁾One notable exception is the English as a Second Language Technical Career Program at Central Piedmont Community College in Charlotte, North Carolina. Still, Latino immigrant enrollment in this program remains limited, due to strict residency requirements.

As will be illustrated below, this can result in immigrant advancement *if* these supervisors are in a position to act as skills intermediaries—positions that would enable them to support and defend the learning process of friends and family. In many cases, however, employers treat these mid-level supervisors as basic interpreters, simply using them to translate directions into Spanish. In these cases interpreters are not necessarily hired because of their construction know-how and experience, but rather their language capabilities. As such, they often have limited influence over the skill-development process or employment promotion decisions.

These recruitment and managerial practices create a third challenge to skills demonstration by further distancing employers from their immigrant workforce. As a result of organizational hierarchies, native-born employers and top-ranking supervisors have limited face-to-face interaction with immigrant workers. This acts to obscure informal and on-the-job learning processes particular to this industry. In contrast to the native-born experience, employers and top-level supervisors often play little direct role in the immigrant learning experience. Instead, they expect immigrant workers to acquire skills by observing others in action and through individual initiative. As a result, employers typically have limited knowledge of the skills that immigrants initially bring to their worksite or the new skills they develop with time. Therefore, it is often much harder for immigrants to demonstrate their existing skills and harness newly acquired skills for occupational advancement. Furthermore, the ever-growing task specialization among North Carolinian subcontractors reinforces the invisibility of immigrant skills (also see Hagan et al, 2008; Iskander and Lowe, 2009). By this we mean that subcontractors, particularly in mainstream construction markets, tend to specialize in a single task, such as applying roof tiling, installing windows, or finishing floors. As such, immigrants employed by specialized subcontractors often have limited opportunities to demonstrate and build on their broad skill base.

Still, despite this being the more common immigrant experience, variation does exist. As illustrated below, our interviews capture emergent pathways that are less restrictive and provide important channels through which immigrant workers, with assistance from established coethnics, develop, demonstrate, and defend their skills and knowledge. While these experiences are less common, they nonetheless hold great promise, especially from a policy and advocacy perspective. Next, we examine the mediating role that established immigrants play in demonstrating the existing skills of fellow immigrants.

Revealing skill through intermediation

As indicated earlier, construction employers in North Carolina often rely on existing immigrant workers to recruit family members and friends. These social ties and family connections also matter for skills-based mobility, insofar as immigrant recruiters are able to use their position within the industry to influence the skills recognition process and, in turn, the occupational status of those they recruit. As the following examples illustrate, established immigrants can play an important role in demonstrating the existing skill sets that immigrant workers bring with them from other work environments.

Julio,⁽³⁾ an undocumented immigrant from Paraiso Honduras, arrived in North Carolina seven years ago. Today Julio is a foreman for a carpentry subcontracting company that specializes in residential construction. Julio developed his construction skills in North Carolina while initially working as a laborer for a small subcontracting firm. He learned about carpentry and, specifically, structural framing by observing tasks performed by other coworkers and at times by seeking out their assistance.

⁽³⁾ All immigrant names have been changed to honor requests for confidentiality.

In 2002 Julio changed employers, quickly advancing to the position of skilled framer. This employment and advancement opportunity was made possible with assistance from an established immigrant. As Julio recounted in our interview, he received assistance in skills demonstration from a coworker who observed firsthand the quality of his work and recommended him for a higher ranking position. In 2007 Julio changed employers yet again, this time securing a position as foreman where he now earns US \$15.00 per hour. As before, this job change and occupational promotion was facilitated by a skills intermediary. He found this third job through a friend who knew about his previous work experience and recommended that his employer hire him on the basis of his existing skills and qualifications.

Another example involves Juan, an undocumented migrant from Oaxaca, Mexico, who moved to North Carolina three years ago because of the lack of stable employment opportunities back home. Unlike Julio, Juan arrived in the US with considerable construction industry experience and with specialized skills in masonry. Currently, he is employed at a construction subcontracting firm in the Research Triangle area of North Carolina and his work responsibilities include bricklaying, cement mixing, and tile work. In addition, he assists with painting projects. Juan estimates that he was able to transfer roughly 70% of the skills he uses in his current job from his earlier work experience in Mexico. As he stated in an in-depth interview, "I've been working since I was really young [in Mexico] and I've learned a little bit of everything along the way." With help from other coethnics, he was able to transfer and defend skills learned in Mexico. Juan secured work in North Carolina's construction industry through the help of friends and fellow immigrants. Acting as skills intermediaries, they also helped to showcase his prior work experience and vast industry knowledge. As a result, his current employer hired him on the basis of his existing skills and quality workmanship. This intermediation support ensured that Juan could work as skilled bricklayer, rather than construction laborer or bricklayer's assistant.

A third example is that of Miguel, a 21-year-old construction worker from Calvillo, Mexico. Miguel moved to Hillsborough, North Carolina in 2005 and with the help of his uncle quickly secured work as a skilled structural framer. His uncle acted as job recruiter and skills intermediary. Aware of Miguel's past work history, the uncle was able to recommend him to his supervisor knowing the company was in need of experienced and qualified construction workers. As with Juan, Miguel learned foundational carpentry skills through his earlier construction work in Mexico and through carpentry courses at a Mexican high school. Unlike Juan, who is much older and with a longer work history in Mexico, Miguel acknowledged that he has learned many more carpentry skills in North Carolina and attributes only 30% of his current carpentry skills to his earlier Mexican work experience. Still, despite some initial skills shortages, Miguel was hired as a framer, rather than for a lower ranking position as framer's assistant. This was due to his uncle's influence in recommending him for the job and, related to this, a Latino foreman's willingness to recognize his existing talents and capabilities.

As these examples illustrate, informal intermediation support from fellow immigrants results in more than just employment opportunities for immigrant job seekers in the state. These supports also provide an important channel through which immigrants can demonstrate and defend their skills to prospective employers and, in the process, secure work on higher rungs of the occupational ladder. As these examples also demonstrate, intermediaries are themselves established immigrant workers in the local industry and as a result are in a pivotal position to influence local hiring and promotional practices. They also draw on their extended family and social networks to recruit, screen, and place prospective employees. As a result they are in a position to mediate

and influence hiring and promotional decisions based on simultaneous knowledge of an employer's needs and a job-seeker's skills and capabilities.

Interestingly, construction industry firms in North Carolina are beginning to formalize immigrant skills intermediation through secondary subcontracting arrangements, whereby Latino immigrants with demonstrated construction experience in North Carolina, plus English proficiency, spin out new business establishments that allow them to directly hire, manage, and mentor immigrant work crews. This arrangement allows established immigrants to function as independent subcontractors and thus represents an emergent entrepreneurial pathway. While a complete review of secondary subcontracting is beyond the scope of this paper, its emergence does suggest opportunities for building on and extending skills intermediation. This independent status not only provides crew leaders with greater negotiating room for setting wage levels and work standards, but also gives them greater discretion in promoting the skills contribution of their immigrant work crews.

Given the current economic slowdown, secondary subcontracting may become more commonplace as first-tier subcontractors shed financial responsibility for their immigrant workforce. While this may generate additional economic insecurity for some immigrant subcontractors and their work crews, it could also open up new channels for negotiating contracts on the basis of crew member skills and experience. At the same time it may provide these crews with greater flexibility by allowing them to combine project work both within and outside mainstream construction markets, a point reinforced in our discussion of informal side projects.

Upskilling through familiar training models

Skills demonstration clearly plays an important role in determining the occupational level at which an immigrant worker enters the industry and how far they can advance occupationally. Equally important for occupational advancement are opportunities for immigrant workers to hone their existing skills and to learn new building techniques in order to keep up with changing employer and industry needs. As indicated earlier, immigrant workers in North Carolina are typically excluded from formal training and apprenticeship programs that can help to augment or update their skills. Still, despite barriers to formal program participation, skills-development opportunities do exist for immigrant construction workers in North Carolina. As with processes of skills demonstration at the hiring and promotional phase, intermediaries are also active in immigrant skill building. The following examples capture methods of structured training provided by intermediaries. One common form of training is on-the-job mentoring that skills intermediaries provide to individual immigrant workers they recruit to the job. In large part this mentoring process emulates the on-the-job training component of a formal apprenticeship. Much like a skilled journeyman, the immigrant intermediary provides structured feedback and guidance to their newly recruited coworker. To hone skills, intermediaries often ask their trainees to repeat tasks while under close observation and, in the process, provide them with constructive feedback on task execution.

Their willingness and ability to provide on-the-job training support ultimately gives intermediaries greater latitude in making hiring and promotional recommendations on the basis of skill and work experience. This is especially important given that immigrant job seekers do not always have the exact combination of skills that are needed to complete an assigned task. Still, as a result of their previous work experience in the industry, they often have sufficient exposure to related construction techniques to allow them to quickly learn new tasks and responsibilities.

This learning potential is clearly captured through the experience of Francisco, a skilled construction worker from Guanajuato, Mexico. Francisco had considerable construction industry knowledge when he first arrived from Mexico in 2007. When asked about this previous knowledge, Francisco described it as

“technique ... the experience that comes from Mexico. Technique is the manner in which the job is done. My method comes from there [Mexico], with different materials but the same intelligence.”

Francisco drew on this previous knowledge when asked by his Latino ‘patron’ or foreman to install siding on a building. Although Francisco had some previous work experience with wood siding, he was not familiar with the exact tools needed for this particular assignment, nor the precise order or sequence of the installation work.

Once his Latino foreman showed him which tools were needed and in which order to use them, Francisco was able to repeat the sequence and perform the job efficiently and to a high standard. As Francisco put it, “the technique isn’t hard. Just show me once, and I can do the whole house. The cuts are the same. The technique is the same.”

In yet another case, Raul, an undocumented immigrant from Mexico State, received extensive training from his brother-in-law and a Mexican foreman after being hired on the basis of his presumed skills. In this case the Mexican foreman actually told the company’s employer that Raul had existing experience in structural framing, knowing that in fact he had none. The foreman was willing to take on this risk knowing Raul’s work history and given his own ability to supervise Raul’s training and skill development.

In some cases established immigrants are innovating with training methods in an effort to increase their role in coethnic skill development. One example is that of Chuy, an established immigrant from San Marcos, Guatemala. Chuy initially secured work as a construction laborer for a large general contractor in 1996, one year after arriving in the United States. He continues to work for this North Carolina-based company, now as a skilled foreman. We interviewed Chuy while he was supervising work on a multimillion-dollar baseball stadium project. In discussing the training methods he uses with his mostly Latino immigrant workforce, Chuy mentioned the growing importance of safety training videos. These videos were initially created in response to high immigrant illiteracy rates, but have also proven a useful resource for teaching technical skills. This is because they provide clear visual demonstration of the correct use of a particular tool or technique. Chuy combines these videos with other training methods, such as performing a task while a trainee observes or providing guidance as they mimic the process. The videos help to reinforce hands-on learning processes and also free up time for other project-related tasks.

As these examples demonstrate, the ability of intermediaries to provide individual mentoring and training support allows them to look beyond initial knowledge gaps to recognize the broader learning capabilities of the immigrant workers they know and recruit. This also provides a larger benefit to the state’s construction industry by broadening the specific skill sets of the region’s immigrant workforce and improving the processes through which they learn new skills and techniques.

Intermediaries also use short-term on-the-job training to expose immigrant job seekers to new or unknown technologies and tools. This is especially important given technological differences across sending and receiving communities—a point further illustrated through the earlier mentioned example of Francisco. Many construction tasks that are mechanized here in the United States, such as cement pouring and setting or tile cutting, are completed by hand or with the use of simple hand tools in Mexico and Central America (Hagan et al, 2008). As this suggests, recent immigrants, despite having considerable construction experience, often need to familiarize themselves with

US-specific tools and equipment-heavy building techniques and standards. In several instances, immigrant intermediaries have assisted with this learning process by bringing a friend, family member, or acquaintance who has recently arrived in North Carolina to their place of work in order to expose them to new equipment and building practices. Often this is structured as a temporary arrangement lasting one or two weeks or until the job seeker is comfortable with a given task or technique.

As with secondary subcontracting, some companies in North Carolina are also taking steps to formalize immigrant mentoring in recognition of its contribution to worker upskilling. Mentoring is typically formalized through company-sponsored group training methods. Team or group training involves an immigrant intermediary assigned responsibility for an organized work crew of two or more immigrant workers. The intermediary not only teaches crew members new skills, but also devises mechanisms for cross-training which draw on the vast body of knowledge and experience of his or her team. This method has also been used by companies to promote industry safety standards. Through a team approach, intermediaries review safety procedures. Team-based discussions also help to reinforce industry safety standards by enabling immigrant workers to share information with one another about injuries they have suffered or witnessed as a result of lax safety procedures.

While our interviews focused mostly on technical skill development relevant to construction work, discussions about company-sponsored team training methods suggest an additional role for intermediation in social skill development and, specifically, in helping immigrant workers to better communicate with employers, coworkers, and construction clients. Related to this, team-based training methods allow employers to reinforce expectations about workplace conduct, including maintaining an ordered and clean workspace, arriving at work on time, and accommodating frequent changes in work assignments. While this may suggest employers' use of intermediation to increase their level of social control at the worksite, it could also provide a counterbalance through which teams of immigrant workers communicate their collective dissatisfaction with certain workplace practices. Still, given that employer support for team-based training is still in the early stages, we are unable at this point in our research to determine its use in undermining or balancing worker power.

In some cases team training is organized by an intermediary who functions independently as a secondary subcontractor. In other cases the intermediary is a foreman or patron who is assigned responsibility for managing a crew of workers hired by a firm. In the latter case the foreman is not only responsible for training crew members, but also often recruits individuals to his or her team from within and outside the firm. One example of this is found at a sixty-employee subcontractor in Raleigh, North Carolina. The owners of the company recognized the contribution of informal mentoring for continuous skills development and now require immigrant supervisors to train workers using a team mentoring model. In this case internal promotion to higher-ranking supervisory positions is contingent not only on an individual's skills and work experience, but also on their willingness to pass along information and knowledge to other immigrant workers and thus to contribute to overall company skill development.

Interestingly, immigrant workers acknowledge that mentoring and group training methods are not unique to North Carolina but are also common training methods in sending communities (see also Germidis, 1974). Those with prior construction work experience in Mexico and other parts of Central America are therefore comfortable with these models of social and interactive learning. Immigrants interviewed from Mexico, for example, have described related mentoring practices based on family relations, whereby a father, uncle, or older cousin, will train their sons, nephews,

or younger cousins, respectively. In North Carolina informal mentoring practices essentially replicate these models through kinship ties or established social networks. Immigrants from Mexico and Central America have also described group or team-based training methods back home and their use in overcoming technological constraints and project challenges through worker cross-training and knowledge sharing. In promoting similar training models here, intermediaries are helping to reproduce the culture of social relations back home. In the process they facilitate the transition from one labor market environment to another—that is, from sending to receiving communities—often by combining skill formation and training practices from different labor market environments.

As one illustration of this, Omar, a 40-year-old immigrant and skilled stone mason from Mexico City, described team-based training methods that he learned starting at the age of 14 when he first entered Mexico City's high-end residential construction market. Omar was part of an informal team made up of half a dozen workers with a range of construction skills and experiences, particularly in stone and brick masonry. He initially secured access to the team through an uncle, also a skilled mason in Mexico City. As he put it, the team method helped to broaden the knowledge base of the entire team and allowed them to cope with unforeseen building challenges and bottlenecks. Additionally, his uncle and other family members helped to supplement team-based learning through informal individual mentoring. Under this supervision Omar developed a range of skills in masonry and stonework and related tasks, such as concrete pouring and finishing. In North Carolina Omar, now as a high-ranking field supervisor and occasional independent contractor, reproduces many of these same practices by providing structured training to immigrant friends. Interestingly, he is not always compensated for this training support, which often takes place in less-formal work settings.

Skills use through informal work and side projects

This brings us to a third contribution of established immigrants in promoting coethnic skill development—their involvement in setting up and supervising after-hours and informal construction projects. In North Carolina's construction industry informal sector work and side projects are commonplace and also play a central role in immigrant skills demonstration and development. Informal work and side projects are often completed on the weekends or in the evenings and typically involve small-scale home renovations, home repairs, or construction-related installation projects. In many cases the client pays cash wages and does not report these payments to tax collection authorities. Clients for these projects are typically identified through established social and community networks. In some cases an immigrant foreman or patron will negotiate a side project and recruit members of the work crews they manage through their day jobs. Though less common, some immigrants also access side projects through unofficial day laborer sites in urban areas of the state.

Side projects are especially important from a skills demonstration perspective as they allow immigrant workers with previous construction industry experience to utilize a greater range of skills than is typically required for most mainstream projects. While mainstream projects usually promote a high level of specialization whereby each work crew is responsible for one particular set of tasks—be it window installation, wood framing, concrete setting, or bricklaying—side projects tend to be more varied in nature and therefore enable workers to combine multiple tasks and thus skills. Furthermore, side projects that are accessed through social and community networks also encourage direct interaction with clients, which creates opportunities for immigrant workers to make construction-related recommendations and suggestions

and in the process better utilize their breadth of knowledge. In this respect, side projects in North Carolina are more closely aligned with mainstream construction projects in sending communities in Mexico and Central America that are less standardized and smaller in scope and thus rely on and produce a workforce with broader skill sets and experiences.

While side projects and informal sector work typically pay less and are often more sensitive to economic pressures and swings, and thus are less stable, they can generate greater job satisfaction, which in turn can influence the level of attachment an immigrant worker has to the industry and regional economy. Not only do immigrant workers find use for skills learned over the course of their construction careers at home and in receiving communities, they are also given an opportunity to impart wisdom by mentoring and training coethnics through these projects. In some cases an established immigrant foreman or patron will use side projects to identify and augment the skill level of members of the work crews they manage during their day job. Side projects are also used as a springboard for immigrant entrepreneurship as they provide skilled workers with an opportunity to develop client networks and business management skills.

The contribution of these projects to skills use and job satisfaction is best illustrated through the experience of José, an immigrant from Leon, Mexico who moved to California in 1999 before moving on to North Carolina four years ago. José described his day job installing sheet rock as monotonous and as a result less satisfying compared with the work he performs on informal side projects. In most cases he completes this extra work for the Latino owner of an apartment complex in Durham, North Carolina that he first contacted through ethnic social networks. In addition to paying José for apartment renovation and repair work, the building's owner also offered to discount the rental deposit thereby enabling José and his family to move into this well-maintained building. Through word of mouth, José has also secured contracts for other remodeling jobs in his predominately Latino neighborhood. This work has enabled him to apply a wide range of construction skills learned in both Mexico and California.

Ramiro's experience is somewhat similar. An immigrant from Mexico City, Ramiro holds additional skills that he is not able to use in his current construction job as a foreman for a general contractor. As one example, he has considerable welding and plumbing experience from previous projects in Mexico that he is unable to use as his current employer is not certified in these crafts. Still, he is able to use these additional skills when he performs home-renovation work at the weekends—work that also allows him to hire coworkers he supervises during his day job. Typically, he finds these additional jobs through immigrant friends and acquaintances who are aware of his skills and are thus able to recommend him and his crew to prospective clients.

As these examples illustrate, side projects enable immigrant workers to utilize and augment their skills. Furthermore, these informal opportunities complement mainstream labor markets by creating alternative work spaces through which skills intermediaries can draw on their coethnic networks and enrich the overall immigrant work experience. In some cases these opportunities also enhance the mainstream work experience by providing an important feedback mechanism for demonstrating and defending immigrant skills to native employers. In this regard they enable intermediaries and the crews they support to move in and out of different economic spaces, and thus further challenge theories of ethnic or immigrant enclaves which presume that coethnic relations between immigrant workers reinforce a separation between ethnic and nonethnic labor markets (Bailey and Waldinger, 1991; Waldinger, 1986).

Institutionalizing intermediation

Our research on North Carolina's construction industry points to the role that immigrant intermediaries play in skills demonstration and development and by filling an institutional gap created by inaccessible training and credentialing programs. As mentioned earlier, skill development in the state's construction industry has traditionally been provided through carefully balanced apprenticeship programs that include both classroom and hands-on training. Still, despite the exclusion of immigrants from these programs, new pathways for immigrant advancement are created with the help of immigrant skills intermediaries.

In this regard, our work challenges existing assumptions about immigrant labor market incorporation. Immigration scholars have long argued that Latino immigrants are typically relegated to more precarious segments of the US labor market—segments whose participating firms lack internal advancement opportunities, worker protections, and skills acquisition support (Sassen, 1989). They also assume that immigrant workers adjust to this environment by moving in and out of informal and ethnic economies, inadvertently reproducing conditions of inequality and isolation (Light, 2006; Sassen, 1989; Zolniski, 1994).

Our findings show there is actually greater variation in the immigrant work experience. While some immigrants are trapped in more precarious employment situations, others have been able to secure quality jobs that provide them with career advancement options and thus greater economic security. Furthermore, informal intermediation and the informal learning processes it supports actually play a central and positive role in skill demonstration and development. Some immigrant workers admit to working on small-scale side projects on the weekends and evenings, often helping immigrant intermediaries with home-renovation work. This informal sector activity is highly valued by immigrant workers, not only as a supplemental income source but also as an additional channel for demonstrating and augmenting skills, which then feeds back in to their formal sector work. This can be especially important for immigrant workers who are unable to learn additional skills in mainstream labor markets, either because of restrictive employment practices or because they are employed at highly specialized subcontractors that promote task-specific learning, but at the expense of broader skill development and use.

In this regard, our observations fit more closely with emerging labor market theories that are not specifically tied to immigrant populations, but rather reflect growing risk and uncertainty in today's more fluid and fast-changing labor markets. Recent work by Benner (2003), Giloth (1998), and Osterman (2003), among others, points to the importance of intermediation services for helping workers navigate changing labor market environments. Intermediaries, be they individuals or organizations, also play a key role in regional labor market adjustment, by helping employers to better articulate their skill needs and to identify and recruit qualified labor. Our findings add to this body of work by pointing to an extension of immigrant intermediation beyond ethnic networks and economies. Similarly, rather than reproducing inequality and isolation, these intermediaries can help to ensure that skills learned in one environment are transferred, recognized, and advanced in another.

Still, as we have already noted, intermediation support by coethnics is an emergent, rather than an established, labor market practice. As such, it may be particularly vulnerable to large-scale economic and demographic shifts that could undermine or weaken the delicate web of social relations on which informal intermediation is built. Furthermore, the current economic environment will likely test the limits of this type of informal support. As one possibility, the decline of employment opportunities in construction could result in a potential backlash from native-born workers and

subsequently have a negative effect on employer–immigrant working relations. Similarly, employers, in the face of growing competitive pressures, may require workers to formally demonstrate skills and training experience, thus limiting immigrant employment options. It is important to remember that our interviews were conducted during a period of economic expansion in the state when employers were perhaps more lax about training requirements, in part because of their need to hire large numbers of workers to meet rising construction demand. Equally, the slowdown could give way to social conflict as established immigrants are forced to compete with coethnics for fewer construction jobs. The effects of job competition in drawing out coethnic tensions and even encouraging exploitative labor practices by established immigrants have been documented in other immigrant-heavy industries and labor markets (Light, 2006; Wells, 1996). In this regard, coethnic intermediation could instead function as a mechanism for social control with the firm, whereby immigrant workers are less willing to contest unfair labor practices out of concern that they will be dropped from job recruitment networks (Manwaring, 1984). These possibilities lend additional support only for strengthening and institutionalizing skills intermediation through immigrant advocacy groups and worker centers.

Steps to formalize intermediation support may also provide an equally important policy solution to an emerging construction industry challenge—a growing skills shortage which is the result of an aging native-born construction workforce. Even as the construction industry experiences a sharp downturn, this deep-rooted skills deficit will likely affect the industry’s ability to fully recover from this contraction, especially given anticipated growth areas of construction that rely heavily on skilled work, such as infrastructure development or green building projects. Federally funded solutions have primarily focused on recruiting native-born employees, working closely with US high schools to try and get more students interested in construction careers. Our research suggests the possibility for complementary strategies that highlight and harness the untapped skills and talents of the existing immigrant workforce. Skills intermediation practices of the kind documented here may be a model on which to build.

As we have illustrated through the North Carolina case study, immigrant social networks penetrate the mainstream economy and are vital to immigrant skill building. Traditional skill-building institutions in the United States remain closed to a large segment of the immigrant population and thus are failing to replenish industry skills by protecting and promoting immigrant talent. As a result it is especially important to pay attention to emergent pathways for immigrant skills development and to consider how these pathways can be strengthened as repositories of immigrant knowledge and power.

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