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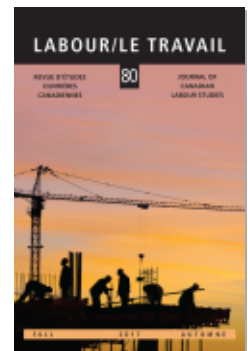
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ARTICLE

Who's on Secondary? The Impact of Temporary Foreign Workers on Alberta Construction Employment Patterns

Jason Foster and Bob Barnetson

THE CANADIAN PROVINCE OF ALBERTA suffers from recurring labour shortages caused by its unstable resource economy.¹ Alberta has historically relied upon interprovincial migrant workers to meet demand during “boom” periods.² Between 2003 and 2013, the availability of interprovincial migrants was inadequate to meet overall demand for workers.³ Alberta’s construction industry and the provincial government sought to recruit workers from groups they defined as underrepresented, such as women and Indigenous peoples, to address this shortage.⁴ At the same time, the federal government altered its long-standing Temporary Foreign Worker Program (TFWP) to enable employers to hire an increasing number of international migrant workers. Alberta employers were among the most enthusiastic users of temporary foreign workers (TFWs).⁵ The effect of TFWS on how employers approach recruitment

1. Meenal Shrivastava & Lorna Stefanick, eds., *Alberta Oil and the Decline of Democracy in Canada* (Edmonton: Athabasca University Press, 2015).

2. Harry H. Hiller, *Second Promised Land: Migration to Alberta and the Transformation of Canadian Society* (Montréal & Kingston: McGill-Queen’s University Press, 2009).

3. Jason Foster & Bob Barnetson, “Exporting Oil, Importing Labour and Weakening Democracy: The Use of Foreign Migrant Workers in Alberta,” in Shrivastava & Stefanick, eds., *Alberta Oil*, 249–274.

4. Government of Alberta, *A Workforce Strategy for Alberta’s Construction Industry* (Edmonton: Employment, Immigration and Industry, 2007).

5. Jason Foster, “Making Temporary Permanent: The Silent Transformation of the Temporary

and retention of traditionally marginalized groups has not been extensively studied.

This article examines employment patterns in Alberta's construction occupations between 2003 and 2014 to determine if the rapid influx of TFWS into the province affected the composition of its construction labour force. In particular, it compares employment patterns for TFWS and targeted groups, which include women, youth, Indigenous peoples, and permanent immigrants. The results provide a mixed and complex picture of shifting patterns within a context of a boom-and-bust economy. Overall, the proportion of workers in construction occupations drawn from the targeted groups has remained relatively unchanged and these workers appear to have more precarious employment. These findings suggest workers from these targeted populations continue to serve as a secondary source of workers for construction employers. The findings also demonstrate that employers are using TFWS as a new, more fluid secondary source of workers.

Labour Force Dynamics in Construction

THE MAJORITY OF CANADIAN construction workers are men, a situation replicated across most industrialized nations. Female, young, Indigenous, and immigrant workers are underrepresented in construction occupations, particularly in the skilled trades. Specifically, women make up less than 5 per cent of workers in construction occupations.⁶ Indigenous workers are overrepresented in construction as a proportion of total Indigenous employment, yet they continue to comprise less than 4 per cent of construction employment and are notably underrepresented in high-skilled trades occupations.⁷ Immigrants' share of employment and employment growth in construction lags that of other workers.⁸ Further, the participation rate of racialized workers continues to be marginal in the construction industry.⁹ Despite ongoing efforts by governments and industry groups to increase employment of these underrepresented groups, progress has been modest. Various factors appear to

Foreign Workers Program," *Just Labour* 19 (Autumn 2012): 22–46.

6. Canada, Construction Sector Council (CSC), *The State of Women in Construction in Canada* (Ottawa 2010).

7. Canada, Construction Sector Council (CSC), *A Study of Aboriginal Participation in the Construction Industry* (Ottawa 2005).

8. Lahouaria Yssaad, "The Immigrant Labour Force Analysis Series: The Canadian Immigrant Labour Market, 2008–2011," Statistics Canada – Catalogue No. 71-606-X (Ottawa: Minister of Industry, 2012).

9. Sheila Block & Grace-Edward Galabuzi, *Canada's Colour Coded Labour Market: The Gap for Racialized Workers* (Ottawa: Canadian Centre for Policy Alternatives, March 2011), <http://www.deslibris.ca/ID/227885>.

inhibit traditionally underrepresented groups from employment in construction occupations.

The limited supply of appropriately trained female applicants is identified as a barrier to increasing women's participation in skilled trades. In 2007, only 8 per cent of the 28,070 women in Canadian apprenticeships were apprenticing in construction trades. While women comprised 3.7 per cent of all building trades apprentices, those who completed the apprenticeship represented only 1.8 per cent of all completions, suggesting disproportionately high attrition.¹⁰ Another line of explanation for low female participation rates centres on isolation, discrimination, and harassment – including employers failing to adequately accommodate the greater role women play in social reproduction – creating barriers for women considering or advancing careers in construction.¹¹

Some employers note that women do not seem interested in and may not be physically able to perform “the job.”¹² It is important to consider whether women's alleged distaste for and so-called inability to perform such work reflect something innate to women and/or the work or, alternately, are contingent upon cultural practices (e.g., job design, working conditions, workplace norms) that are malleable via workplace change. Scott Moss suggests that, when women choose employment, they (quite rationally) prefer nondiscriminatory workplaces, occupations, and industries.¹³ Faced with imperfect information about the prevalence of discriminatory practices, women use gender diversity as a proxy indicator: a low proportion of female employees indicates an undesirable field or workplace. In Moss's analysis, female underrepresentation in a workplace, occupation, or industry reflects employers' (rather than women's) choices.

10. Canada, csc, *State of Women in Construction*.

11. Marcia Braundy, *Men & Women and Tools: Bridging the Divide* (Halifax: Fernwood, 2011); Jennifer Scullun, “Women in Male Dominated Trades: It's Still a Man's World” (Regina: Saskatchewan Apprenticeship and Trades Certification Commission, 2008); Women in Leadership Foundation, *Women in Construction Trades: A Strategic Plan to Promote Women* (Vancouver: Industry Training Authority of British Columbia, 2010); Government of New Brunswick, *Resource Guide: How to Recruit and Retain Women Workers in Non-Traditional Workplaces* (New Brunswick: Wage Gap Reduction Initiative, 2007); Ann Manicom, Nan Armour, Rhonda Sewell & Doreen Parsons, *In the Picture ... A Future with Women in Trades, Science and Technology*, vol. 1 (Halifax: Hypatia Association, 2004); Ann Manicom, Nan Armour & Doreen Parsons, *In the Picture ... A Future with Women in Trades, Science and Technology*, vol. 2 (Halifax: Hypatia Association, 2004); Christine L. Andrews, J. D. Wilkins & Leslie Wilkins, “Aiming at Systemic Change by Addressing Equity Head On,” in *Proceedings of the 2001 NAMEPA/WEPAN Joint National Conference: “Co-Champions for Diversity in Engineering”* (Alexandria, Virginia, 21–24 April 2001).

12. Women in Leadership Foundation, *Women in Construction Trades*.

13. Scott Moss, “Women Choosing Diverse Workplaces: A Rational Preference with Disturbing Implications for Both Occupational Segregation and Economic Analysis of Law,” *Harvard Women's Law Journal* 27 (2004): 1–88.

Similarly, Indigenous workers face a range of barriers to construction employment, particularly in the skilled trades. The supply of Indigenous workers is restricted because lack of access to appropriate training and certification limits these workers' job prospects in the industry.¹⁴ Often construction jobs are located in regions well removed from Indigenous communities. Even when projects are located in or near their communities, Indigenous workers may struggle to access the available jobs due to lack of transportation and limited availability of the social supports that facilitate employment (e.g., housing, child care, public transit).¹⁵ Racism and prejudice within the industry can also be an issue, suggesting that systemic barriers limit Indigenous workers' ability to find construction employment.¹⁶

Research in other sectors, including resource extraction, which has links to construction, demonstrates the entrenched nature of the barriers experienced by Indigenous workers. Few of the long-term benefits of large projects flow to Indigenous workers, who are more likely to end up in lower-skilled, less-permanent employment.¹⁷ Further, even when employment equity agreements are in place, inadequate training and education opportunities stunt the potential for stronger labour force connections.¹⁸ Projects that create the right training environment for Indigenous workers are rare.¹⁹

Despite a plethora of government programs and policies aimed at promoting Indigenous employment, results have been disappointing, and there is little evidence of sustained improvement.²⁰ Often the type of training provided

14. Canada, CSC, *Aboriginal Participation*.

15. Government of Alberta, *Connecting the Dots: Aboriginal Workforce and Economic Development in Alberta*, Report of the MLA Committee on the First Nations, Métis and Inuit Workforce Planning Initiative (Edmonton, June 2010).

16. Canada, CSC, *Aboriginal Participation*.

17. Suzanne Mills & Brendan Sweeney, "Employment Relations in the Neostaples Resource Economy: Impact Benefit Agreements and Aboriginal Governance in Canada's Nickel Mining Industry," *Studies in Political Economy* 91, 1 (2013): 7–33; Ken J. Caine & Naomi Krogman, "Powerful or Just Plain Power-Full? A Power Analysis of Impact and Benefit Agreements in Canada's North," *Organization & Environment* 23, 1 (2010): 76–98, doi:10.1177/1086026609358969.

18. Alison Taylor, Tracy Friedel & Lois Edge, *Pathways for First Nation and Métis Youth in the Oil Sands*, CPRN Research Report (Ottawa: Canadian Policy Research Networks, April 2009); Marjorie Griffin Cohen, ed., *Training the Excluded for Work: Access and Equity for Women, Immigrants, First Nations, Youth, and People with Low Income* (Vancouver: UBC Press, 2003); Frances Abele, Thomas J. Courchene, F. Leslie Seidle & France St-Hilaire, eds., *Northern Exposure: Peoples, Powers and Prospects in Canada's North*, vol. 4 of *The Art of the State* (Montréal: Institute for Research on Public Policy, 2009).

19. Marjorie Griffin Cohen & Kate Braid, "Training and Equity Initiatives on the British Columbia Vancouver Island Highway Project: A Model for Large-Scale Construction Projects," *Labor Studies Journal* 25, 3 (2000): 70–103.

20. Daniel J. K. Beavon, Cora Jane Voyageur & David Newhouse, eds., *Hidden in Plain Sight:*

through such programs restricts Indigenous workers' range of employment opportunities.²¹ Part of the problem is that governments often view Indigenous workers as a supply of cheap, low-skilled labour, sometimes pushing them into substandard employment opportunities.²²

Immigrant workers also deal with demand and supply issues regarding access to education, sponsorship for apprenticeship, recognition of credentials, and experience with racism and discrimination.²³ Real or perceived language barriers and cultural differences may also impede employment²⁴ and integration²⁵ in construction workplaces. Another supply-side limitation involves recent changes to immigration policies that disfavour lower-skilled and blue-collar immigration applicants, reducing the available pool of newcomers with interest and skills in construction.²⁶

Young workers experience significant barriers to employment in all industries. In part, this is due to a common perception among employers that younger workers lack education, experience, and employment history.²⁷ In recent years, the construction industry has expressed concern that younger workers are decreasingly interested in careers in construction, pointing to dropping apprenticeship rates and trades certificate graduation.²⁸ However, some observers suggest the decreases are the result of insufficient apprenticeship

Contributions of Aboriginal Peoples to Canadian Identity and Culture (Toronto & Buffalo: University of Toronto Press, 2005); Taylor, Friedel & Edge, *Pathways in the Oil Sands*; Cohen, ed., *Training the Excluded for Work*.

21. Tyler McCreary, "Mining Aboriginal Success: The Politics of Difference in Continuing Education for Industry Needs," *Canadian Geographer* 57, 3 (2013): 280–288.

22. Ron LaLiberte, "The 'Grab-a-Hoe' Indians: The Canadian State and the Procurement of Aboriginal Labour for the Southern Alberta Sugar Beet Industry," *Prairie Forum* 31, 2 (2006): 305–323.

23. Isumi Sakamoto, Matthew Chin & Melina Young, "'Canadian Experience,' Employment Challenges, and Skilled Immigrants: A Close Look through 'Tacit Knowledge,'" *Canadian Social Work Journal* 10, 1 (2010): 145–151.

24. Philip Oreopoulos, "Why Do Skilled Immigrants Struggle in the Labor Market? A Field Experiment with Thirteen Thousand Resumes," *American Economic Journal: Economic Policy* 3, 4 (2011): 148–171, doi:10.1257/pol.3.4.148.

25. Grant Schellenberg & Hélène Maheux, "Immigrants' Perspectives on Their First Four Years in Canada: Highlights from Three Waves of the Longitudinal Survey of Immigrants to Canada," in *Canadian Social Trends: Special Edition 2007*, Statistics Canada – Catalogue No. 11-008 (Ottawa 2007).

26. Lotf Ali Jan Ali, "Welcome to Canada? A Critical Review and Assessment of Canada's Fast-Changing Immigration Policies," RCIS Working Paper No. 2014/6, Ryerson Centre for Immigration and Settlement (Toronto: Ryerson University, 2014).

27. House of Commons Standing Committee on Finance, "Youth Employment in Canada: Challenges and Potential Solutions" (Ottawa: Government of Canada, 2014).

28. Conference Board of Canada, "Solving the Skilled Trades Shortage" (Ottawa 2002); BuildForce Canada, *Construction and Maintenance: Looking Forward* (Ottawa, February 2014).

opportunities provided by employers and other demand-side factors that push young workers away from the industry.²⁹

Construction is inherently a cyclical industry, with rapid expansion and contraction of labour demand tied to economic activity. Workers are linked to specific projects for short periods of time and often experience periods of unemployment between jobs. The unstable nature of construction economics creates a labour market dynamic wherein workers regularly leave and enter employment, creating multiple points of contact with the hiring practices of employers. This pattern is particularly true in jurisdictions that depends on resource extraction, like Alberta.³⁰

Labour Market Segmentation

LABOUR MARKET SEGMENTATION theory offers a useful framework for considering the pattern of worker participation in the construction industry.³¹ Segmentation theory argues that the labour market is divided into primary and secondary segments. The primary segment consists of so-called quality jobs, held predominantly by workers with ascribed characteristics that could be labeled as privileged (e.g., nonracialized men). The secondary segment is the location of so-called lower-quality jobs, where relatively marginalized workers (e.g., women, racialized workers) are disproportionately located. Mobility between the segments is difficult, in essence creating two labour markets. While the segments generally reside in differing sectors of the economy (e.g., finance vs. retail), it is recognized that labour market segments can occur within a single industry, sector, or even firm, dividing workers into two groups.³² Workers who find themselves in the secondary segment have a less secure attachment to the labour market, experience worse working conditions, and are more vulnerable to exploitation.³³

An important aspect of the theory is that the segments are the result of an ongoing “historical process” driven by “political-economic forces.”³⁴

29. Alberta Federation of Labour, *Beyond Chicken Little: Understanding the Need for Measured Reforms to Alberta's System for Skills Training* (Edmonton, April 2006).

30. Alberta Treasury Board and Finance, “A Dimmer Outlook for Alberta Economy,” *Economic Trends*, 1 March 2016, 1–3.

31. Michael Reich, David M. Gordon & Richard C. Edwards, “A Theory of Labor Market Segmentation,” *American Economic Review* 63, 2 (1973): 359–365; Harald Bauder, “Culture in the Labor Market: Segmentation Theory and Perspectives of Place,” *Progress in Human Geography* 25, 1 (2001): 37–52, doi:10.1191/030913201672119762.

32. Ben Fine, *Labour Market Theory: A Constructive Reassessment*, Routledge Frontiers of Political Economy (London & New York: Routledge, 1998).

33. Frank Wilkinson, ed., *The Dynamics of Labour Market Segmentation* (London & New York: Academic Press, 1981).

34. Reich, Gordon & Edwards, “Labor Market Segmentation,” 359.

While much of the discussion on segmentation focuses on identifying and describing the resulting segments, there is value in considering the nature of the processes that create them. Political and economic contexts create a dynamic where employers adopt particular employment practices related to hiring, wages, security, and other matters. The labour market structures and behavioural rules emerge from specific contexts over time, which in turn entrench particular patterns of employment. Segmentation is driven by both demand-side (attributes of the job such as wage, educational requirements) and supply-side (attributes of workers such as education, job preference) processes.³⁵ To understand the operation of segmented labour markets, we need to examine not only the structures of the sector but also the social dynamics that shape workers' preferences, tendencies, and opportunities. To this end, the presence of inequality in an industry is insufficient to determine if segmentation exists.³⁶ We must consider the broader context and how that context entrenches inequality so as to create a state of segmentation.³⁷

While segmentation theory has not been frequently cited in recent years, it continues to be a relevant descriptor of labour market dynamics in capitalist economies. Research shows that the secondary groups continue to experience difficulty transitioning to the primary labour pool.³⁸ Recent research in segmentation has highlighted the effects of intersectionality, namely, the increased likelihood that those with multiple vulnerable statuses are in the secondary segment.³⁹ Immigration status continues to be a significant factor in determining labour market location.⁴⁰ While some have observed a slight reduction in the importance of gender in segmentation dynamics, there is a rise in the importance of citizenship and nonstandard employment as determining factors.⁴¹

35. Bauder, "Culture in the Labor Market."

36. Fine, *Labour Market Theory*.

37. Jamie Peck, *Work-Place: The Social Regulation of Labor Markets* (New York: Guilford Press, 1996).

38. Cynthia Cranford, Leah F. Vosko & Nancy Zukewich, "Precarious Employment in the Canadian Labour Market: A Statistical Portrait," *Just Labour* 3 (2003): 6–22; Grace-Edward Galabuzi, *Canada's Economic Apartheid: The Social Exclusion of Racialized Groups in the New Century* (Toronto: Canadian Scholars' Press, 2006).

39. Evangelina Tastsoglou & Valerie Preston, "Gender, Immigration and Labour Market Integration: Where We Are and What We Still Need to Know," *Atlantis* 30, 1 (2005): 46–59; Marlou Schrover, Joanne van der Leun & Chris Quispel, "Niches, Labour Market Segregation, Ethnicity and Gender," *Journal of Ethnic and Migration Studies* 33, 4 (2007): 529–540, doi:10.1080/13691830701265404.

40. Raluca Buzdugan & Shiva S. Halli, "Labor Market Experiences of Canadian Immigrants with Focus on Foreign Education and Experience," *International Migration Review* 43, 2 (2009): 366–386, doi:10.1111/j.1747-7379.2009.00768.x.

41. Kenneth Hudson, "The New Labor Market Segmentation: Labor Market Dualism

On the surface, construction may not seem an industry marked by segments. Theoretically, all workers compete for the same jobs and there is some structured process for mobility to higher-level jobs (through the apprenticeship system). While inequality in working conditions and wages exists between higher- and lower-ranking jobs (i.e., between ticketed skilled trades and general labourer positions), the presence of the inequality is not, in itself, evidence of segmentation.⁴² Further, the project-based nature of construction means most employment is insecure and of limited duration.

However, the structure of the industry is highly segmented in multiple ways. First, there are four distinct subsectors within the industry: industrial, commercial/institutional, road/civil, and residential construction. Contractors generally specialize in one subsector. The divide between residential and industrial is particularly rigid. Industrial construction firms are larger with more formalized employment policies. Industrial construction in Canada is heavily unionized⁴³ and requires a higher proportion of skilled tradesworkers due to the complex nature of the work. The work is also well compensated and jobs are of a longer duration. In contrast, residential firms are small, rarely unionized, and employ mostly general labourers. Jobs tend to be of a shorter duration and lower pay; working conditions and safety practices are worse. Commercial and road construction fall in the middle of these two extremes.

Second, a complex structure of contracting and subcontracting also contributes to segmentation. Smaller, more contingent firms working on tight margins may be present at the same job site as larger, better-resourced companies. At the largest projects, the prime contractor might serve as more of a project manager than a direct employer of workers.

Third, and more pertinent to segmentation theory, a clear divide exists between trades occupations, which require education, apprenticeship, and certification, and general labourer and other non-ticketed occupations, which demand little education or specialized skills. While all construction occupations are exposed to employment insecurity, trades are considered and socially promoted as a career and offer higher wages along with other features of primary-segment employment, such as pensions and health benefits. Tradesworkers are most likely to be older, nonracialized men. General labourers receive significantly lower wages and fewer (if any) benefits. These occupations are perceived as temporary, undesirable jobs rather than as a potential career. Indigenous workers, women, youth, and immigrants are more likely to work as general labourers and in other occupations not requiring certification

in the New Economy," *Social Science Research* 36, 1 (2007): 286–312, doi:10.1016/j.ssresearch.2005.11.005.

42. Fine, *Labour Market Theory*.

43. Alberta Labour Relations Board, "Structure of the Construction Industry" (Edmonton 2003).

(e.g., painter).⁴⁴ Finally, apprenticeship and certification requirements act as a form of social closure, preventing workers in the lower occupations from moving to the more lucrative trades occupations.⁴⁵ In apprenticeships, workers are highly dependent upon an employer (or a union) to support their training and provide opportunities for work experience – a dynamic that feeds into status quo patterns of employment.

The inherent churn of employment in the construction industry facilitates the creation and maintenance of segments. The short-term nature of construction employment allows employers to continually manage their labour force through hiring and layoff practices. The demand for workers ebbs and flows; as such, a smaller cadre of skilled trades remains relatively coveted but the employer also requires a surplus pool of secondary workers to fill in the gaps during peak times. Workers in the primary labour segment are “first hired, last fired,” while those in the secondary segment(s) are used to address labour shortages and to temper wage inflation when the labour market tightens. These secondary sources of labour are “last hired, first fired,” and this position entrenches their contingent and marginal status in the industry.

In practice, Canada’s construction industry has developed a very segmented structure, with multiple potential barriers to labour mobility for those situated in the less desirable sectors and occupations. Further, those less desirable segments are more likely than more desirable segments to be populated by women, youth, immigrants and Indigenous workers. Consequently, viewing construction labour market dynamics through the lens of labour market segmentation theory has the potential to reveal new insights into the industry and its practices.

Normally, the presence of trade unions in an industry serves to weaken the rigidity of segmentation. While construction has higher rates of unionization than many industries in Canada, unions may serve to entrench, rather than undermine, segmentation. Union density in Alberta’s construction industry is approximately 21 per cent and is concentrated in industrial construction projects.⁴⁶ The bulk of construction employment, however, is in the mostly non-union commercial and residential sectors. Because residential and commercial construction offers poorer working conditions than the more unionized industrial sector, unionization is unlikely to reduce the degree

44. Women in Leadership Foundation, *Women in Construction Trades*; Canada, csc, *Aboriginal Participation*; NAHB Economics, “Immigrant Workers in the Construction Labor Force,” National Association of Homebuilders, Washington, DC, 1 April 2013.

45. Frank Parkin, *Marxism and Class Theory: A Bourgeois Critique* (New York: Columbia University Press, 1979).

46. Statistics Canada, “Table 282-0077: Labour Force Survey Estimates (LFS), Employees by Union Coverage, North American Industry Classification System (NAICS), Sex and Age Group, Unadjusted for Seasonality,” CANSIM (database), accessed 7 March 2017.

of segmentation in the industry.⁴⁷ Membership in building trades unions tends to reflect broader demographic patterns of the industry.⁴⁸ Two factors further weaken unions' potential impact on decreasing segmentation in construction: first, significant barriers to obtaining union membership, and second, hiring practices that favour workers with greater seniority in the union (i.e., senior members circle back to the top of the list more quickly).

Temporary Foreign Worker Program

CANADA HAS A LONG HISTORY of government intervention in the labour market in order to address shortages of workers. Historically, the federal government altered its immigration policy to facilitate the use of immigrant labourers for canal and railway construction during the mid- and late nineteenth century.⁴⁹ Immigration was (and remains) an important source of domestic workers. Series of waves of racialized migrant agricultural workers have also occurred in individual Canadian provinces.⁵⁰ In Alberta, these began in the late nineteenth century and included migrant workers from Britain and central Canada, internees, prisoners of wars, Polish veterans, Indigenous peoples, and Mexican Mennonites.⁵¹ While Canada continues to operate programs ensuring an adequate supply of foreign agricultural workers and live-in caregivers, Canada's Temporary Foreign Worker Program (TFWP) has become the largest and most significant route through which Canadian employers access foreign labour.

The TFWP allows employers to recruit TFWS if no qualified Canadian citizens are available to perform the work. For most of its history, the TFWP was restricted to higher-skilled occupations and thus inaccessible to most

47. Andrew Jackson, *Work and Labour in Canada: Critical Issues*, 2nd ed. (Toronto: Canadian Scholars' Press, 2010).

48. Jackson, *Work and Labour*.

49. Valerie Knowles, *Strangers at Our Gates: Canadian Immigration and Immigration Policy, 1540–2007*, rev. ed. (Toronto: Dundurn, 2007); Ruth Bleasdale, "Class Conflict on the Canals of Upper Canada in the 1840s," *Labour/Le Travail* 7 (1981): 9, <http://www.jstor.org/stable/25140020>; H. Clare Pentland & Paul Arthur Phillips, *Labour and Capital in Canada, 1650–1860* (Toronto: Lorimer, 1981).

50. Tanya Basok, *Tortillas and Tomatoes: Transmigrant Mexican Harvesters in Canada* (Montréal & Kingston: McGill-Queen's University Press, 2002), <http://www.deslibris.ca/ID/400194>.

51. John H. Thompson & Allen Seager, "Bringing In the Sheaves: The Harvest Excursionists, 1890–1928," *Canadian Historical Review* 58, 4 (1978): 467–498; John H. Thompson & Allen Seager, "Workers, Growers and Monopolists: The 'Labour Problem' in the Alberta Beet Sugar Industry in the 1930s," *Labour/Le Travail* 3 (1978): 153–174; LaLiberte, "The 'Grab-a-Hoe' Indians"; W. J. C. Cherwinski, "The Incredible Harvest Excursion of 1908," *Labour/Le Travail* 5 (1980): 57–79.

construction employers.⁵² In 2002, the federal government extended the program to include lower-skilled workers (i.e., National Occupational Code [NOC] classifications C and D). In 2006, a list of “occupations under pressure” was established for Alberta and British Columbia, reducing employer requirements for acquiring Labour Market Opinions (LMOs), which grant permission to hire TFWS.⁵³ In 2012, the federal government dramatically reduced the turn-around time for processing LMO applications, amended wage rules in order to allow employers to reduce TFW wages, and waived the LMO process altogether for American TFWS in seven high-demand construction occupations.⁵⁴

Continuing public outcry regarding misuse of the program by employers saw the federal government instituting a further set of reforms in 2014 aimed at significantly reducing employer use of low-skilled TFWS.⁵⁵ The changes split the program into two parts. Rules around the use of higher-skilled workers were loosened, making it easier for employers in the construction, transportation, and petroleum sectors to hire TFWS. Meanwhile, a series of restrictions related to low-skilled TFWS employed in the retail, food, and hospitality industries were added, including a firm four-year time limit for TFW residency in Canada and phased-in quotas on employers’ use of TFWS as a percentage of their workforce. In 2016, the new Liberal government revoked the four-year time limit.⁵⁶

The federal government uses the term “stock” to denote the number of TFWS in a jurisdiction on 1 December of each year. Alberta’s stock of TFWS rose from 11,376 in 2003 to 65,618 in 2009, before falling slightly in 2010 and then rebounding to 68,339 in 2012.⁵⁷ Not captured by these numbers are non-status (i.e., illegal) foreign migrants, such as TFWS who stayed on after the expiration of their work permits, as well as other foreign nationals working without a permit.

These figures also do not capture the growing number of migrant workers who entered Canada under International Mobility Programs (IMPs) rather than under the TFWP. The IMP route includes international students who have

52. Foster, “Making Temporary Permanent.”

53. Judy Fudge & Fiona MacPhail, “The Temporary Foreign Worker Program in Canada: Low-Skilled Workers as an Extreme Form of Flexible Labor,” *Comparative Labor Law & Policy Journal* 31, 1 (2009): 5–45. The term Labour Market Opinions was used at the time of the policy change; LMOs have since been renamed Labour Market Impact Assessments (LMIAs).

54. Foster, “Making Temporary Permanent.”

55. Employment and Social Development Canada, “Overhauling the Temporary Foreign Worker Program” (Ottawa 2014).

56. “Liberals Scrap ‘4-in, 4-out’ Rule for Temporary Foreign Workers,” *CBC News*, 13 December 2016, <http://www.cbc.ca/news/politics/liberals-scrap-4-in-4-out-rule-for-temporary-foreign-workers-1.3895110>.

57. Citizenship and Immigration Canada, *Canada Facts and Figures: Immigration Overview, Permanent and Temporary Residents, 2012* (Ottawa 2013).

graduated from a Canadian school and workers covered by free trade agreements. The number of IMPs employed in Alberta's skilled trades increased six-fold between 2009 and 2013. For example, in 2007 there were 8,055 TFWs and 545 IMPs in NOC 7 (construction) occupations in Alberta. In 2013, there were 7,905 TFWs and 3,295 IMPs.⁵⁸ For the purposes of this study, we have combined IMP and TFW numbers as "TFWs" to fully represent the size of the migrant worker cohort. The decision to combine the two programs also reflects the fact that construction occupations span a range of skills, which means both programs are relevant to this analysis.

The growth in TFWs can also be seen as a shift in Canada's postwar immigration policy away from multicultural citizenship and toward differential exclusion⁵⁹ or partial citizenship,⁶⁰ whereby migrants are granted access to certain aspects of citizenship (e.g., partial access to the labour market) but excluded from other legal, political, and economic rights. Alberta employers and politicians frequently use labour shortages to justify the existence and expansion of the TFWP.⁶¹ Critics suggest that the TFWP is not strictly necessary and results in wage suppression and the displacement of Canadian workers from the labour force.⁶² Researchers have identified ways in which TFWs may appeal to employers for reasons entirely unrelated to labour shortages. Federal government restrictions on their ability to change employers and limited (or no) access to public services or protections available to permanent residents, such as health care, education, unionization, and workplace rights, mean TFWs may depend upon their employers for their right to reside and work in Canada.⁶³ The federal government's decision to accord migrant

58. Citizenship and Immigration Canada, special data run for authors, 6 January 2015.

59. Stephen Castles, *Ethnicity and Globalization: From Migrant Worker to Transnational Citizen* (London & Thousand Oaks, California: SAGE, 2000).

60. Leah Vosko, *Managing the Margins: Gender, Citizenship, and the International Regulation of Precarious Employment* (Oxford & New York: Oxford University Press, 2010).

61. Bob Barnetson & Jason Foster, "The Political Justification of Migrant Workers in Alberta, Canada," *Journal of International Migration and Integration* 15, 2 (2014): 349–370, doi:10.1007/s12134-013-0292-6.

62. Alberta Federation of Labour, "Workers Displaced by TFWs Not Getting Their Jobs Back, despite Claims from Company," media release, 10 February 2014; Alberta Federation of Labour, "Prentice Plan to Re-Open TFW Floodgates Would Be Bad News for Working Albertans," media release, 26 September 2014; Alberta Federation of Labour, "Ironworkers Protest against Jobs Being Given to TFWs instead of Qualified Local Tradespeople," media release, 15 January 2015; Dominique Gross, *Temporary Foreign Workers in Canada: Are They Really Filling Labour Shortages?* (Ottawa: C. D. Howe Institute, 2014).

63. Tanya Basok, Danièle Bélanger & Eloy Rivas, "Reproducing Deportability: Migrant Agricultural Workers in South-Western Ontario," *Journal of Ethnic and Migration Studies* 40, 9 (2014): 1394–1413, doi:10.1080/1369183X.2013.849566; Luin Goldring & Patricia Landolt, "Caught in the Work–Citizenship Matrix: The Lasting Effects of Precarious Legal Status on Work for Toronto Immigrants," *Globalizations* 8, 3 (2011): 325–341, doi:10.1080/14747731.20

workers precarious legal status buttresses employers' already considerable power in the workplace.⁶⁴ Further, migrant workers may also experience low wages, few benefits, and limited job security. The economic insecurity caused by this precarious employment can intensify workers' vulnerability to employer demands by acting as a barrier to exiting a job or asserting employment rights⁶⁵ – although TFWs do sometimes exercise such rights, despite the risks.⁶⁶

Alberta's Workforce Strategy and Construction Industry

THROUGHOUT THE 1990s and early 2000s, Alberta experienced repeated labour shortages as a result of the expansion of oils sands extraction capacity.⁶⁷ Whether these shortages reflected an absolute shortage of workers or simply that there were no more workers prepared to make themselves available to work given prevailing wages and working conditions is unclear. Regardless of whether labour shortages were absolute or relative, these shortages were particularly acute in the early 2000s. In 2006, the Alberta government announced a ten-year strategy for addressing the province's workforce needs. The strategy, titled "Building and Educating Tomorrow's Workforce," recognized a growing concern about labour shortages in a variety of industries and occupations. It

11.576850; Abigail B. Bakan & Daiva K. Stasiulis, "The Political Economy of Migrant Live-In Caregivers: A Case of Unfree Labour?," in *Legislated Inequality: Temporary Labour Migration in Canada*, ed. Patti Tamara Lenard & Christine Straehle (Montréal & Kingston: McGill-Queen's University Press, 2012), 202–226; Nandita Rani Sharma, *Home Economics: Nationalism and the Making of "Migrant Workers" in Canada* (Toronto: University of Toronto Press, 2006).

64. Bridget Anderson, "Migration, Immigration Controls and the Fashioning of Precarious Workers," *Work, Employment & Society* 24, 2 (2010): 300–317, doi:10.1177/0950017010362141; Nandita Sharma, "The 'Difference' That Borders Make: 'Temporary Foreign Workers' and the Social Organization of Unfreedom in Canada," in Lenard & Straehle, eds., *Legislated Inequality*, 26–47; Audrey Macklin, "Freeing Migration from the State: Michael Trebilcock on Migration Policy," *University of Toronto Law Journal* 60, 2 (2010): 315–348, doi:10.3138/utlj.60.2.315..

65. Jill Hanley, Eric Shragge, Andre Rivard & Jahhon Koo, "'Good Enough to Work? Good Enough to Stay!' Organizing among Temporary Foreign Workers," in Lenard & Straehle, eds., *Legislated Inequality*, 245–271; Christine Hughes, "Costly Benefits and Gendered Costs: Guatemalans' Experiences of Canada's 'Low-Skill Pilot Project,'" in Lenard & Straehle, eds., *Legislated Inequality*, 139–157; Kerry Preibisch & Gerardo Otero, "Does Citizenship Status Matter in Canadian Agriculture? Workplace Health and Safety for Migrant and Immigrant Laborers," *Rural Sociology* 79, 2 (2014): 174–199, doi:10.1111/ruso.12043.

66. Alberta Federation of Labour, *Entrenching Exploitation: The Second Report of the AFL's Temporary Foreign Worker Advocate* (Edmonton 2009); Jason Foster & Bob Barnetson, "Justice for Janitors in Alberta: The Impact of Temporary Foreign Workers on an Organizing Campaign," *Journal of Workplace Rights* 16, 1 (2012): 3–29; Delphine Nakache & Paula J. Kinoshita, *The Canadian Temporary Foreign Worker Program: Do Short-Term Economic Needs Prevail over Human Rights Concerns?* (Montreal: Institute for Research on Public Policy, 2010).

67. Shrivastava & Stefanick, eds., *Alberta Oil*.

noted that the booming economy combined with changes in technological and education demands was placing significant pressure on Alberta's labour force. The government developed an overarching strategy to broaden the labour pool and increase access to work for workers from targeted groups. It also, however, identified permanent and temporary migration as ways to address the labour shortage:

This strategy emphasizes ensuring all Albertans have the opportunity to develop their knowledge, skills and talents and apply them in the labour market and in their personal lives to the extent of their potential. This includes First Nations, Métis, Inuit peoples, persons with disabilities, Albertans with literacy challenges, immigrants in Alberta, youth, mature workers, Albertans with low income, and women. However, addressing labour force challenges will also require some interprovincial migration and immigration of appropriately skilled workers to Alberta.⁶⁸

A workforce strategy specific to the construction industry, which was considered one of the sectors most pressured by shortages, was developed in 2007 by the government in consultation with industry stakeholders. This strategy predicted that construction would be responsible for "21.2 per cent of all new jobs expected to be created in Alberta between 2006 and 2011. Shortages of skilled labour are expected during peak periods and in high growth areas."⁶⁹ The construction strategy emphasized the importance of increasing the participation of nontraditional labour sources: "There are opportunities, however, to draw more people from groups currently under-represented in the construction labour force (i.e. women, underemployed Albertans, Indigenous peoples, mature workers, etc.)."⁷⁰ Specific initiatives to increase the employment of underrepresented groups included career promotional campaigns targeted at youth, support training for underrepresented groups, application of policies that create more welcome work environments for a more diverse labour force, and diversity training for managers and employers. The strategy explicitly indicates that higher levels of employment from targeted groups is a measurement of success.⁷¹

The workforce strategy also advocated for increased access to TFWs by "streamlin[ing] processes (i.e., immigration and temporary foreign worker) for bringing in workers from other countries when shortages of workers with specific trades skills are widely recognized."⁷² There is no indication in the strategy that seeking out greater access to TFWs might be at cross-purposes with its other goals of attracting underrepresented groups.

68. Government of Alberta, *Building and Educating Tomorrow's Workforce: Alberta's 10-Year Strategy* (Edmonton 2006), 8.

69. Government of Alberta, *Workforce Strategy*, 4.

70. Government of Alberta, *Workforce Strategy*, 6.

71. Government of Alberta, *Workforce Strategy*, 17.

72. Government of Alberta, *Workforce Strategy*, 12.

Since the release of the strategy in 2007, the government has issued two updates, in 2010 and 2012, which list specific initiatives undertaken by industry partners to achieve the goals found therein.⁷³ However, these updates provide no data regarding how well the industry has performed at attracting and retaining workers from the targeted groups. In other words, there has been no public evaluation of how well the strategy goals were met.

Method

THIS STUDY SEEKS TO ANSWER the following research question: How did the demographics of employment in construction occupations shift during the period of influx of TFWS in Alberta? Of particular interest is the relationship between the growing body of TFWS and the participation rates among women, youth (defined as 15 to 24 years), Indigenous people, and immigrants in construction occupations between 2003 and 2013.

Data for TFWS working in construction came from Citizenship and Immigration Canada (CIC), which collects employment data on work permits. These permits record location and occupation of employment. CIC provided data on the stock of TFWS working in construction occupations in Alberta. However, CIC only codes employment data by occupation, not by industry. This limitation required that the study examine workers in construction occupations rather than in the construction industry as a whole. Non-construction-related occupations in the industry, such as clerical, managerial and engineering, are not included in the data. The study considers TFWS data from 2003 to 2013, as 2014 data had not yet been publicly released.

Data for construction occupations was gathered from Statistics Canada's Labour Force Survey (LFS), through a custom data run of construction occupations. Numbers of workers in construction occupations were broken down by gender, age, immigration status, and Indigenous⁷⁴ status. The LFS methodology has respondents self-report immigration and Indigenous status. Data for all categories except immigration status was available for 2003 to 2014. The LFS only began tracking immigration status in 2006. At the time of the run request, the LFS categorized occupation using NOC 2006 classifications, while CIC used NOC 2011. The two sets of data were sorted manually using NOC's Concordance Tables to ensure consistency in categorization between the two coding structures.

The data was analyzed by comparing various descriptive statistics, including share of employment and yearly rate of employment change, for each identified

73. Government of Alberta, *Alberta Industry Workforce Strategies: Progress Update 2006–2010* (Edmonton 2010); Government of Alberta, *Alberta Industry Workforce Strategies: Progress Update 2012* (Edmonton 2012).

74. Statistics Canada uses the term "Aboriginal" in the LFS. We use the word "Indigenous" but retain the Statistics Canada definition.

Year	Construction employment (thousands)	Alberta unemployment rate* (%)
2003	245.8	5.1
2004	256.7	4.7
2005	258.3	4.0
2006	288.6	3.5
2007	309.2	3.5
2008	332.3	3.6
2009	306.8	6.5
2010	302.1	6.6
2011	324.2	5.4
2012	350.3	4.6
2013	352.7	4.6
2014	368.6	4.7

Table 1: Total Construction Occupation Employment, Alberta

Note: * Alberta unemployment rates from Statistics Canada Labour Force Survey.

group: women, men, immigrants, Indigenous workers, young workers, and TFWS. With the exception of men, no attempt was made to isolate subgroups (e.g., Indigenous women, immigrant youth) because the numbers of workers in these categories were too small to allow for meaningful analysis. It should be noted, that virtually all TFWS in construction occupations were male.

Findings

AS TABLE 1 SHOWS, employment in construction occupations grew during the period of study from 246,000 to 369,000 workers, an increase of 50 per cent. To place this in context, total employment in Alberta increased 32 per cent during the same period.⁷⁵ However, this growth masks the cyclical nature of construction employment. Table 1 shows a cycle of fairly rapid increases followed by a steep drop or levelling off of employment that parallels the province's economic boom-and-bust cycle, as shown by the provincial unemployment rate. The first boom, between 2006 and 2008, witnessed a 15 per cent increase in construction employment (about 44,000 jobs) followed by an equally steep decrease of almost 10 per cent in 2009 and 2010 during the global economic crisis. A second upward cycle began in 2011 with another 16 per cent increase in two years. In 2013, the figures level off, reflecting a more localized and short-lived slowdown due to sagging oil prices. The year 2014

75. Government of Alberta, *2014 Annual Alberta Labour Market Review* (Edmonton 2015).

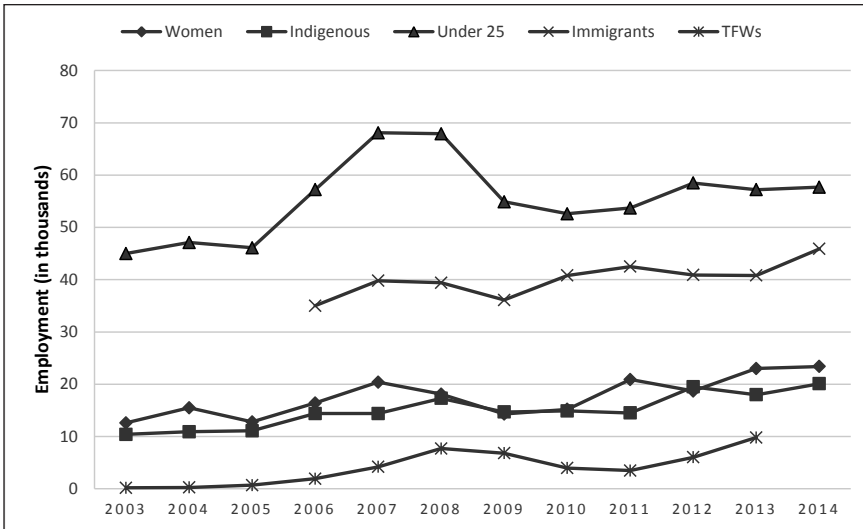


Figure 1: Total Construction Employment, Select Groups (in Thousands)

was the beginning of a short third boom, which ended in 2015 – outside of our data range – with another significant drop in employment.⁷⁶

Throughout this period, men continued to dominate construction occupations in the province. On average, men held 93.6 per cent of construction jobs, a percentage that remained steady throughout the period. Men's proportion never dropped below 92.6 per cent or rose above 94.4 per cent in any year. Further, the majority of male construction jobs are filled by non-immigrant, non-Indigenous men over 25 years of age. Since 2006 (the first year immigrant status data is available), non-immigrant, non-Indigenous men older than 25 averaged 70.2 per cent of total construction employment. Given that men comprise a high proportion of the overall construction workforce, male employment levels mirror overall industry employment trends.

Figure 1 shows the total number of workers in each of the selected groups (women, youth, Indigenous, immigrants, TFWs) in construction occupations. All groups increased in size between 2003 and 2014. All groups also display a cyclical pattern that is broadly reflective of Alberta's economy. Nevertheless, Figure 1 also reveals differences in the specific patterns for each group, which requires further exploration. Of particular interest are the upward trends among immigrants and TFWs as well as the relatively poor performance of young workers in the second half of the period.

76. Government of Alberta, "Alberta Labour Force Statistics December, 2015" (Edmonton 2015).

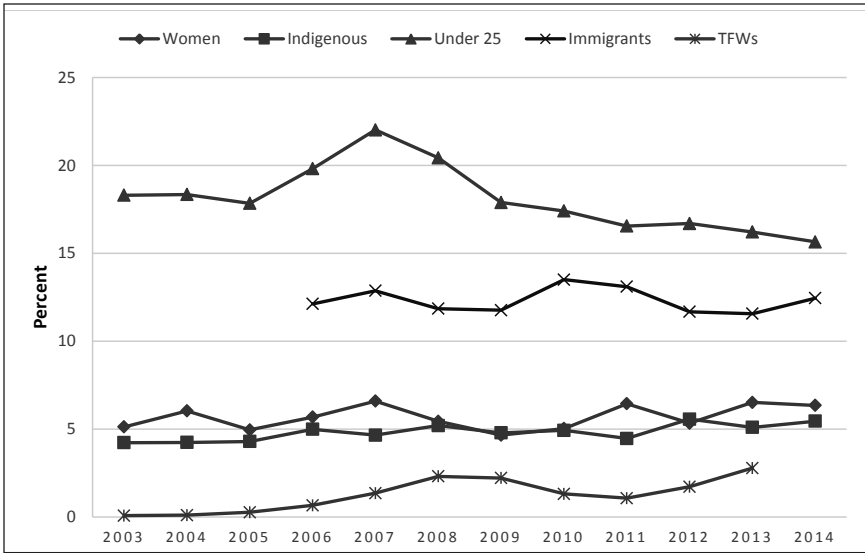


Figure 2: Percent of Total Construction Employment

Using raw employment numbers makes it difficult to disentangle group effects from the overall growth in construction employment and may also mask intragroup dynamics. Figure 2 shows each group’s percentage of total construction employment. This calculation evens out cyclical variations attributable to macroeconomic conditions. Gains apparent in Figure 1 are now erased, with only TFWS making real gains during the period. Women, immigrants, and Indigenous people maintain an approximately static share of employment, moving within a fairly narrow range. Notably, the youth share of employment drops precipitously after 2007, from a peak of 22 per cent in 2007 to 15 per cent in 2014, a figure lower than 2003.

A closer look at Figure 2 reveals three further observations. First, while the effect is fairly small, immigrants and women make observable percentage gains during the two booms, but lose ground during busts (as do youth for the first half of the period). TFWS follow a similar trend, except that both their increases and their decreases are delayed in relation to other groups. This deviation will be explained in the discussion section. Third, Indigenous workers display a relatively flat trend line, gaining less than other groups during upturns but losing less ground during downturns.

Figures 3, 4, and 5 show the year-over-year percentage change in employment for each group (broken up for ease of reading). Year-over-year change measures the degree of volatility in the employment patterns of the group. Figure 3 lays out the changes for women and immigrants. The pattern for women is noticeably more volatile than that of the industry as a whole. Women

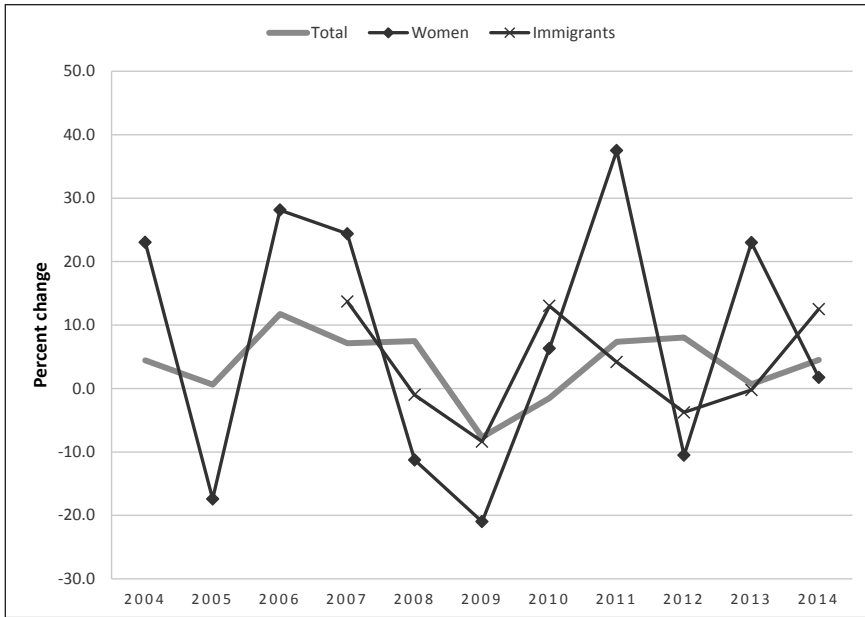


Figure 3: Year-over-Year Employment Change, Women and Immigrants (%)[†]

Note: [†] The thick grey line with no data points represents year-over-year change in total employment in construction. When a group's change is substantially above or below the total employment line, it indicates an increased degree of volatility in comparison to the industry as a whole.

make greater-than-average gains during boom periods but suffer more substantial losses during downturns. There is an unexplained anomaly in the final two years of the period (2013–14): women lose employment when, if this pattern held true, they should gain and gain employment during a downturn. For immigrants, the pattern is more subdued, but there is still evidence of greater employment gains during the boom and slightly larger losses during downturns.

Figure 4 shows the changes for youth and Indigenous workers. We see two different patterns in this figure. The Indigenous line is fairly chaotic, and it is more difficult to discern a trend. The increases and decreases do not seem linked to the overall employment trends. However, the volatility of Indigenous employment is much higher than average and remains indicative of a more precarious link to the construction labour force. It is possible other factors account for the unpredictable nature of Indigenous construction employment. It is also possible that the relatively small numbers of Indigenous workers in the data set makes the numbers sensitive to small variations in the sample year over year.

In the first half of the period, youth have similar patterns of increased volatility as do other groups, climbing faster than total employment during the

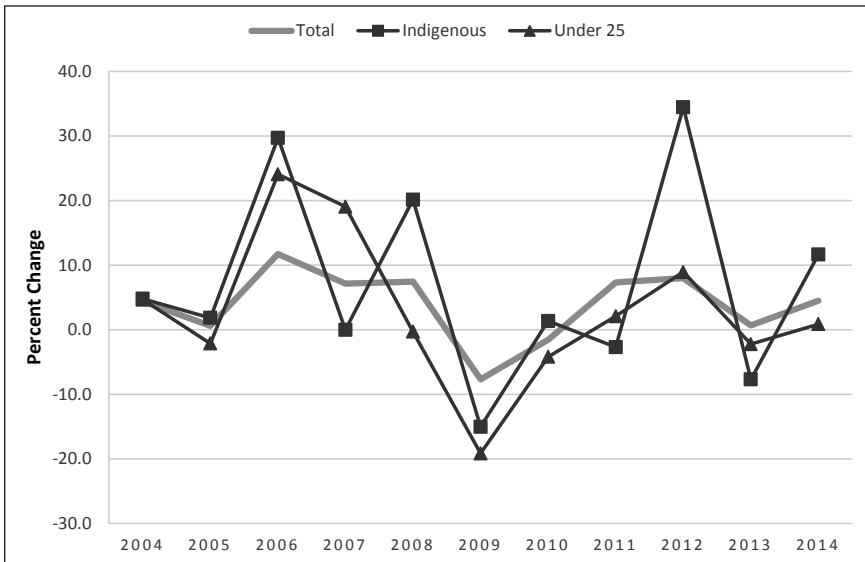


Figure 4: Year-over-Year Change, Indigenous and Youth (%)[†]

Note: [†] The thick grey line with no data points represents year-over-year change in total employment in construction. When a group’s change is substantially above or below the total employment line, it indicates an increased degree of volatility in comparison to the industry as a whole.

boom and dropping faster during the first downturn. Youth never recover during the second wave, however. Their annual change remains below the average for the last seven years of the study period. The reasons for this dropoff will be considered in the discussion section.

Figure 5 isolates the patterns of change for TFWs. The volatility in employment for TFWs is of a magnitude unseen for any other group. The size of the TFW movement is large enough to cause the total employment line to lose its wave pattern. While the year-over-year changes for other groups range from 5 per cent to 30 per cent, TFW employment swings between 50 per cent and 175 per cent in annual change. Massive increases in TFW employment occur between 2004 and 2008, followed by a very steep dropoff between 2009 and 2011. The large increases return in 2012 and 2013, when the data ends.

Discussion

THE STUDY FINDINGS LEAD to a few observations. First, not unexpectedly, Alberta construction employment patterns are cyclical and highly sensitive to overall economic conditions in the province, although construction occupations have shown a higher-than-average growth overall. Second, the structure of the industry’s labour force has remained largely unchanged. Men, and

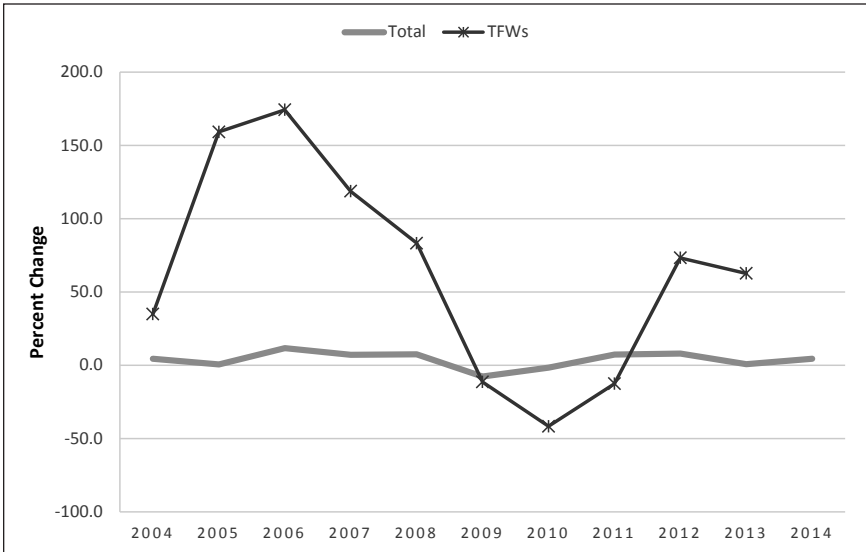


Figure 5: Year-over-Year Change, TFWs (Percent)[†]

Note: [†] The thick grey line with no data points represents year-over-year change in total employment in construction. When a group's change is substantially above or below the total employment line, it indicates an increased degree of volatility in comparison to the industry as a whole.

particularly men who are not part of a traditionally disadvantaged population, remain the primary labour source for construction employers. Other types of workers, including women, youth, Indigenous people, and immigrants, did not see their relative share of employment increase significantly during the period. The finding of little change in the participation rates among these groups over the past twelve years strongly suggests that the Alberta government's ten-year labour force strategy and the efforts by construction industry partners to increase effective recruitment and retention of these groups were unsuccessful. This lack of change suggests traditional explanations of construction's male-dominated workforce are insufficient to understanding why more women, Indigenous people, and other groups are not working in the sector. We will return to this issue at the end of the article.

Third, the study quantifies the employment patterns of targeted groups of underrepresented workers in construction. In short, they experience a "last hired, first fired" relationship with construction employers. When overall labour supply tightens, these groups become relatively more attractive to employers and their rate of employment increases at a greater rate than that of men outside of targeted groups (in part because the supply of available men is scarcer during those periods). However, their gains prove ephemeral as their job losses are more severe when a downturn occurs. Across the period of

study, none of these groups made significant gains in their share of construction employment. Further, their precarious link to such employment has not abated and may, in some cases, have intensified.

Labour market segmentation theory may offer an explanation for this pattern, albeit one that is not particularly flattering to Alberta construction employers. In short, Alberta employers appear to prefer to hire Canadian-born men when they have a choice. The basis of this preference is unclear but it means that workers in traditionally underrepresented groups comprise secondary pools of labour and are put at a relative disadvantage in competing for jobs. Workers in these groups also compete with one another for the remaining available jobs in the industry. While there may be churn between specific groups and across the economic cycle, the underlying structure of the construction labour market remained essentially stable over the period under study.

Another consideration is that the segmented nature of construction is also manifested in employers. The secondary segment of the industry – residential construction, general labourer subcontractors – is populated by a greater portion of smaller, less stable companies, while the higher end of the industry is dominated by larger, more institutionalized corporations. This structural segmentation among employers may also affect the in-and-out employment pattern of targeted groups.

A visual analysis of the raw data shows that the targeted groups were over-represented in lower-skill, lower-status occupations and underrepresented in ticketed trade occupations. This finding confirms existing patterns of employment in the industry, as discussed above. It also provides further evidence for the segmented nature of construction employment in Alberta. Not only are these groups secondary pools of labour, they also are relatively segregated in secondary segments of the labour market. The present data set cannot provide information regarding employment in industry subsectors (e.g., industrial vs. residential). Further exploration of this issue will require additional research.

It is worthwhile to pause to comment on the particular situation of young workers in construction. Their relative position declined over the second half of the study period as their share of construction jobs shrunk. The data is insufficient to ascertain a reason for this decline, but a few explanations are plausible. First, Alberta's population has aged over the past decade. Between 2006 and 2015, there is a noted reduction in the relative proportion of Alberta's population under the age of 25.⁷⁷ The proportion of Alberta's population comprising 15- to 24-year-olds dropped from 15.22 per cent to 12.79 per cent over this period.⁷⁸ The number of young workers employed across all industries

77. Alberta Treasury Board and Finance, "Alberta Percentage of Population by Age and Sex, 1921 to 2015" (Edmonton 2016).

78. Statistics Canada, "Table 051-0001: Estimates of Population, by Age Group and Sex for July 1, Canada, Provinces and Territories," CANSIM (database), last modified 28 September 2016.

has dropped since 2008. Construction numbers may reflect this demographic shift. Second, youth may be becoming less inclined to choose construction occupations and be shifting to other sectors, although there is no available data to directly support this explanation. Another possible cause is that young workers are disproportionately found in lower-skilled jobs, such as general labourers and helpers. Lower-skilled “helper” jobs comprise about 12 per cent of all construction jobs, while 30 per cent of young workers are found in these occupations.⁷⁹ Employers may be shifting the structure of their workplaces to help retain more skilled staff, thereby temporarily displacing lower-skilled youth in order to retain more skilled, older employees. Also, lower-skilled youth may find themselves in direct competition with the increased numbers of TFWs coming to perform these lower-skilled tasks. It has been reported that some employers will classify TFWs at a higher skill level to facilitate entry, but assign them to lower-skill tasks,⁸⁰ which might displace young workers in those positions.

The final observation is that TFWs, once non-existent in this sector, have quickly become established as a permanent labour supply option for construction employers. The volatile nature of TFW employment cycles suggests TFWs have become a new secondary source of labour to supplement and possibly supplant women, Indigenous workers, and other secondary supply sources. However, TFWs differ from the traditional secondary supply in two respects. First, the magnitude of their employment volatility is exponentially larger than that of the other secondary groups, a trend not seen before. In this respect, they can be considered a type of hypervolatile secondary labour supply. In many respects it is difficult to cluster TFWs with other secondary groups because the degree of their volatility is so much greater.

The hypervolatility of TFWs may be explained by their status of partial citizenship, where they are afforded only some of the rights of citizenship granted to the other secondary groups. TFWs are more dependent on the employer and they possess fewer options for alternative employment. They cannot decide to switch occupations or industries and their motivation to come to and remain in Canada may temper their willingness and ability to advocate for themselves. This status makes TFWs more attractive to employers but also establishes a dynamic where they are eager to be recruited but can be laid off with few consequences for the employer. The result is a hypervolatility unseen in any other group.

79. Labour Force Survey, custom data run for authors, January 2015.

80. Jason Foster & Alison Taylor, “Permanent Temporary-ness: Temporary Foreign Workers in Alberta’s Construction Trades” (paper presented at Canadian Industrial Relations Annual Conference, Fredericton, New Brunswick, June 2011); Jason Foster & Alison Taylor, “In the Shadows: Exploring the Notion of ‘Community’ for Temporary Foreign Workers in a Boomtown,” *Canadian Journal of Sociology* 38, 2 (2013): 167–190.

A second observation is that the boom-and-bust cycle for TFWS is delayed compared to other secondary labour supply groups. Their growth occurs later than in other groups, suggesting TFWS are a supply of last resort. However, their outward flow is also delayed, occurring after other secondary workers have begun seeing their numbers decline. Part of the appearance of a delay may be an artifact of the data source. CIC tracks residency in Canada, not employment. It is possible the TFWS became unemployed at the same time as other groups, but remained in Canada for a period of time in the hope of finding new employment.

This pattern of hypervolatility and delayed flow may also reflect employer logic regarding TFWS. The difficulty and cost of hiring a TFW are substantial. There are regulatory hurdles that can take months to clear and the employer incurs significant costs for recruitment, transportation, housing, training, and other factors. These factors may cause employers to delay their decision to turn to TFWS. However, on the other end of the cycle, employers may be reluctant to release the TFWS for whom they have invested time and money. TFWS are also perceived by many construction employers to be superior in many ways to Canadian workers in terms of their work ethic, commitment, and obedience.⁸¹

The effect of TFWS on overall construction employment patterns is less clear, in large part because so little changed in the overall employment distribution between the identified groups. TFWS have not undermined the position of Canadian-born men in the sector, in terms of employment status. Nor have they had an overall impact on most secondary groups, whose status remains relatively unchanged. It is possible the use of TFWS has weakened the labour market position of young workers, who have seen their relative numbers decline, and that employers perceive TFWS as a good source of labour for lower-skilled construction jobs.

However, we believe it would be a mistake to conclude that the effect is null. The influx of TFWS occurred during a period of above-average employment growth in construction (when taking cyclical patterns into effect). Without the federal policy changes that made it possible (and, subsequently, easier) for construction employers to hire TFWS, the labour market in Alberta's construction industry would have been much tighter. The resulting increased relative labour demand might have forced employers to increase their efforts to recruit nontraditional workers. This, in turn, might have improved the position and participation rates of the secondary labour groups, at least during boom periods. In other words, the increased use of TFWS may have dampened employer efforts to expand the domestic labour pool and thus perpetuated the marginalization of secondary groups. Also it is possible the influx of TFWS as an additional, hypervolatile secondary labour supply has had other effects not measured in this study. These effects might include reducing upward pressure

81. Foster & Taylor, "Permanent Temporary-ness."

on wages and working conditions, reducing the likelihood of unionization, and perpetuating an exclusive and uninviting workplace culture.

The increased use of TFWS may also have undermined the effectiveness of Alberta's ten-year labour force strategy. The data clearly indicates that efforts taken under that strategy have failed to significantly increase the proportion of workers from targeted groups in construction occupations. The dual goals of recruiting more underrepresented workers and facilitating easier access to TFWS appear to have been in conflict, which is something not recognized by the Alberta government or industry partners. The failure of the strategy also suggests that traditional approaches to recruiting nontraditional workers into construction may not be effective. These approaches may be predicated on faulty assumptions about why these groups of workers are not present in the construction labour force. Additional and tailored training, promotional campaigns, and financial incentives may not be sufficient to attract significant numbers of these workers.

Instead, industry and government may need to examine two heretofore unexamined sets of factors. First, the structure and workplace culture of construction work may be unattractive to these groups of workers. There is an extensive literature on the experiences of women in highly masculinized occupations such as the construction trades. Employment insecurity breeds competitiveness among workers wherein displays of strength, stamina and risk-taking are rewarded, even when such traditionally male behaviours and attributes are unnecessary. Such displays may also provide psychic rewards to workers. The valorization of traditional forms of (often "white") masculinity can also result in displays of sexism, racism, and harassment.⁸² Long working hours, remote locations, and unpredictable work availability can also pose barriers to nontraditional workers, who may have obligations that cannot be easily reconciled with traditional job designs in construction.⁸³ As Kris Paap notes, the structural and cultural issues that deter women and other nontraditional workers can be altered (often profoundly) by managerial policies. For example, scheduling accommodations can positively affect workers' perceptions of work-family conflict.⁸⁴ However, such policies may run

82. Kris Paap, *Working Construction: Why White Working-Class Men Put Themselves – and the Labor Movement – in Harm's Way* (Ithaca: Cornell University Press, 2006); Kate Ness, "Constructing Masculinity in the Building Trades: 'Most Jobs in the Construction Industry Can Be Done by Women,'" *Gender, Work & Organization* 19, 6 (2012): 654–676, doi:10.1111/j.1468-0432.2010.00551.x.

83. Jacqueline H. Watts, "'Allowed into a Man's World' Meanings of Work-Life Balance: Perspectives of Women Civil Engineers as 'Minority' Workers in Construction," *Gender, Work & Organization* 16, 1 (2009): 37–57, doi:10.1111/j.1468-0432.2007.00352.x; Sandra L. Fielden, Marilyn J. Davidson, Andrew W. Gale & Caroline L. Davey, "Women in Construction: The Untapped Resource," *Construction Management and Economics* 18, 1 (2000): 113–121, doi:10.1080/014461900371004.

84. Helen Lingard, Valerie Francis & Michelle Turner, "Work-Life Strategies in the

contrary to the economic interests of employers, who may benefit financially from a workforce willing to work long, hard hours in unsafe conditions with little commitment.⁸⁵

Second, a lack of social and economic supports for marginalized workers impedes their ability to participate in the construction workforce, particularly in higher-skilled, more stable occupations. Poverty and a lack of affordable housing, child care, access to education and language training, and other factors create barriers to advancing in the construction workforce. It may be that a more holistic understanding of workers' situations and experiences is required to move beyond the stubborn status quo in which the Alberta construction industry is mired.

This study examined the effect of TFWS on Alberta's construction labour market. The method employed does have some limitations. Due to lack of data availability by industry, the study relied upon occupational data that excludes non-construction jobs located in the construction industry (e.g., clerical, engineering, finance), which may present differing results. Missing years in data for immigrants (2003–5) and TFWS (2014) also limit the scope of the analysis. Quantitative data alone does not provide insights into the thinking of the various actors, and thus this study cannot draw any firm conclusions as to why underrepresented groups continue to be marginal in this industry or why construction employers have turned to TFWS, although other studies can be of some benefit here.⁸⁶

Alberta was chosen as the location of this study because that province had the highest use of TFWS in the country during this period. Future research that looks at Canada as whole and/or at other jurisdictions (e.g., British Columbia) may offer additional insights into the shifting patterns of construction employment. There is also a need for more in-depth research examining the degree to which supply (employers don't hire) or demand (workers don't want the job) issues are the primary factors in the continued low representation of women, youth, immigrants, and Indigenous workers in the construction industry.

Conclusion

THE ALBERTA GOVERNMENT and construction industry partners committed in 2006 to a comprehensive strategy to recruit and retain greater numbers of underrepresented groups. At the same time, however, construction employers

Australian Construction Industry: Implementation Issues in a Dynamic Project-Based Work Environment," *International Journal of Project Management* 30, 3 (2012): 282–295, doi:10.1016/j.ijproman.2011.08.002.

85. C. Gascoigne, E. Parry & D. Buchanan, "Extreme Work, Gendered Work? How Extreme Jobs and the Discourse of 'Personal Choice' Perpetuate Gender Inequality," *Organization* 22, 4 (2015): 457–475, doi:10.1177/1350508415572511.

86. See, for example, Foster & Taylor, "In the Shadows."

were increasingly turning to TFWS to address their secondary labour market needs. These contradictory strategies led to a complex set of consequences for construction employment in Alberta. This study has found that TFWS have become a permanent and hyperflexible part of secondary labour supply for construction employers. In addition, the positions of women, immigrants, and Indigenous workers remain unchanged, while the proportion of youth in construction occupations has declined. These results suggest that governments and industry need to adopt more holistic approaches to recruiting underrepresented groups.