Introduction: Labor Markets and Public Policies in the United States and Canada

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The United States and Canada are as close economically and socially as any pair of countries in the world. They share similar cultural traditions and economic institutions. They are also closely linked by trade and multinational firms that operate on both sides of the border. Nevertheless, the two countries differ in many small but important ways that ultimately affect individual outcomes and overall labor market performance. Canada has a more comprehensive set of social programs that tend to be more redistributive than those in the United States. Canada also has a higher rate of immigration, with nearly twice as many immigrants per capita. The Canadian economy is more reliant on the natural resource sector, while the United States has a larger tech sector. The United States has a wider distribution of income, with higher poverty rates and a higher share of people with earnings far above the median salary. It also experienced a far deeper and longer-lasting recession in 2007–8, the consequences of which are still being analyzed and debated.

There is a long tradition in social science of using comparisons between the United States and Canada to uncover the impacts of different institutions and policies, including work in political science (e.g., Lipset 1990), criminology (e.g., Sloan et al. 1988), medicine (e.g., Gorey et al. 2009), demography (e.g., Boyd 1976), and labor relations (e.g., Meltz 1985). Building on this tra-

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dition and the earlier *Small Differences That Matter* volume of studies of labor markets and social programs (Card and Freeman 1993), the National Bureau of Economic Research, with the generous support of the Sloan Foundation, organized a conference at Employment and Social Development Canada with a series of papers on US and Canadian comparisons of labor market and social policy issues. Final versions of the papers from that conference are presented in this volume.

The papers cover five broad themes: social programs, unemployment, immigration, local labor markets, and human capital. Several papers revisit topics from the original *Small Differences That Matter* volume, including income support programs for single mothers, the interpretation of unemployment, the effects of immigration policies, and changes in relative wages for different education groups. Other papers address new topics, including the distribution of mortality risk, the geographic variation in intergenerational mobility rates, and the relative importance of cognitive and noncognitive skills. A common thread running through the papers is the growing quantity and quality of micro data sets—including survey and administrative data sets—that are available to researchers on both sides of the border and that allow deeper and more conclusive analyses than were possible 25 years ago.

I. Social Programs

One of the major differences between the United States and Canada is the scope of their income support and social programs. Three papers in this volume look at the changing nature of these programs in each country and the effects that the program differences have on people on opposite sides of the border.

A. Income Support for Families with Children

Both Canada and the United States have implemented major reforms to their income support programs for single-parent families over the past two decades. Historically, both countries offered cash welfare programs with high benefit reduction rates that were widely blamed for the low work hours of single mothers. In the United States, the introduction of the Earned Income Tax Credit, together with limits on eligibility for cash welfare, led to a system with low levels of support for nonworking mothers and substantial incentives to earn at least modest amounts. Canada also introduced a tax credit for working parents and a child benefit supplement that substantially raised overall support for moderate-income families without the large reductions in support for the lowest-income families seen in the United States. Hilary Hoynes and Mark Stabile study the effects of these reforms on the labor supply behavior of single mothers with a high school education or less and on their household incomes and poverty rates. Consistent with existing stud-

ies, they conclude that the reforms in both countries led to a rise in work by single mothers. But they find little indication that the stronger work incentives in the United States led to a relative rise in work by single mothers in the United States relative to those in Canada—a pattern they attribute in part to the prolonged effects of the Great Recession.

B. Disability Insurance

The rise in disability insurance caseloads in the United States over the past two decades has attracted extensive interest from economists and policy makers. As noted by Kevin Milligan and Tammy Schirle, however, disability insurance participation rates in Canada actually fell over the same period. In 2015, the fraction of 30-59-year-olds receiving disability insurance was about four times higher in the United States than in Canada. Milligan and Schirle present a simple decomposition in which they relate disability insurance participation rates in the two countries to simple measures of benefit generosity and median wages. They show that disability insurance benefit rates remained relatively low in Canada between 1996 and 2015, whereas they rose by about 18% in the United States. In contrast, real median wages of low- and middle-educated workers rose in Canada while they fell in the United States, particularly after 2005. In the context of their model, the divergence in benefits and wages accounts for a sizeable share of the higher disability insurance participation rate in the United States. Indeed, their estimates imply that if US benefits and wages had followed the same trend as in Canada, disability insurance participation rates would be about 40% below their current level, or only about two times higher than in Canada.

C. Geographic Differences in Age-Specific Mortality Rates

Differences and trends in mortality rates are widely used to help understand how social and economic factors are affecting overall standards of living. In this context, the gaps in mortality rates between richer and poorer areas provide a helpful summary of the distribution of the burden of mortality. Michael Baker, Janet Currie, and Hannes Schwandt examine changes in age-specific mortality rates in different US counties and Canadian census divisions between 1990 and 2010, ranking areas by the fraction of high school graduates. In both countries mortality rates for males and females in all age ranges generally fell, with the largest declines for children under the age of 15—particularly in the United States. Among the youngest children (ages 0-4), US mortality rates fell more in the most disadvantaged counties, leading to a relatively flat gradient across counties that by 2010 was close to the gradient observed in Canada. For older children and young adults there were also large drops in mortality in the most disadvantaged US counties, nearly equalizing death rates in the two countries for areas with the highest share of low-educated people. The authors argue that these remarkable trends were S246 Card/Oreopoulos

due in part to the expansion of public health insurance programs in the United States over the past two decades.

II. Unemployment

The unemployment rate is a closely watched indicator of labor market performance in most developed counties, including Canada and the United States. Thirty years ago, the divergence in unemployment rates between the two countries attracted the attention of labor economists (e.g., Ashenfelter and Card 1986; McCallum 1987), with much of the focus on the potential role of the unemployment insurance system in explaining this gap. An important legacy of that work was the recognition that there is a subtle distinction between those who are counted as unemployed and those who are counted as out of the labor force—a distinction that can matter for understanding unemployment rates.

A. Changes in US-Canadian Unemployment and the Behavior of Long-Term Jobless Workers

During the Great Recession of 2008-9, unemployment in the United States rose to levels unseen since the 1930s and then fell only gradually over the next decade. A key policy question is to what extent this rise and slow recovery was attributable to the combination of an unprecedented collapse in labor demand or to a breakdown in the labor market matching process. Kroft et al. (2016) addressed this question in the framework of a search and matching model, taking observed vacancies as given and modeling the evolution of the job-finding process for workers who are observed as unemployed or out of the labor force based on pre-2008 data. In their paper for this volume, Kory Kroft, Fabian Lange, Matthew Notowidigdo, and Matthew Tudball offer a "cross validation" of this approach based on parallel models for Canada and the United States. An important innovation in their Canadian model is that they can allow for duration dependence in the job-finding rates of both currently unemployed workers (whose time since last working is observed in US and Canadian data) and those who are out of the labor force (whose time since last working is observed only in Canadian data). They conclude that while the initially higher level of unemployment in the United States at the start of the Great Recession can be attributed to the larger drop in vacancies and bigger rise in job loss rates, the very slow recovery reflected a breakdown in job matching relative to past patterns that did not happen in Canada. They also underscore the importance of distinguishing between workers who are counted as unemployed and those who are counted as out of the labor force in modeling the dynamics of job matching and of incorporating duration dependence in job finding for both groups.

B. Unemployed, Out of the Labor Force, or Marginally Attached?

Since the 1940s, the United States, Canada, and most other countries have relied on a three-state classification of the adult population, counting people as employed, unemployed, or out of the labor force. Broadly speaking, nonworkers who are available and actively searching for work are counted as unemployed, while the rest are out of the labor force. Nevertheless, when asked, about 5% of the latter group in both the United States and Canada say they want a job. Stephen Jones and Craig Riddell use questions asked about the desire for work in the labor force surveys of the two countries to classify the out of the labor force population into the "marginally attached" (those who want work) and the "nonattached" (those who do not). They then use consecutive monthly responses from the two surveys to estimate four-state transition models and compare the job-finding rates of adults who are unemployed, marginally attached, and nonattached. Their key finding is that the marginally attached have job-finding rates in both countries that are strictly between those of the unemployed and the nonattached. They also use information on the changes in the relative fractions of labor force survey respondents in the four states to decompose the change in the Canada-US unemployment rate gap (which fell from around 2.5 percentage points in 2000 to around 0.5 percentage points in 2017) into changes attributable to relative trends in labor force participation, relative trends in the share of participants who want work, and relative trends in the probability of actively searching given the desire for work. They conclude that changes in the probability of wanting work are the largest contributor to the closing of the unemployment gap.

III. Immigration Policy and Migrant Selection

Although both the United States and Canada experienced large inflows of immigrants in the nineteenth and early-twentieth centuries, in the latter part of the twentieth century immigration rates for Canada vastly exceeded those for the United States. As a result, the fraction of immigrants in the Canadian population today is nearly twice as high as in the United States. The composition of the immigrant groups is also different, with more highly educated immigrants in Canada. Recently, with the recognition that highly skilled immigrants are a potential engine of growth (e.g., Hunt and Gauthier-Loiselle 2010), much attention in both countries has been devoted to this group.

A. Supply versus Policy Factors in the Relative Performance of High-Skilled Immigrants

The characteristics and ultimate success of the immigrants in a given country depend on both the rules that determine who is allowed to immi-

grate and the supply choices of potential immigrants. Andrew Clark, Ana Ferrar, and Mikal Skuterud examine the relative importance of these factors for university-educated immigrants in three of the largest immigrant-receiving countries: the United States, Canada, and Australia. For highly skilled immigrants, a key policy choice is whether to allow employers to select potential employees who they then sponsor as immigrants (as in the US H-1B program) or to have the government select among applicants using a points-based system (as was traditionally the case in Canada and Australia). A second key choice is the provision of "stepping stone" visas (such as the optional practical training visa extension in the United States) for international students who complete a degree in the destination country.

Over the past three decades, Canada and Australia have moved their systems closer to that of the United States, with increasing reliance on employer selection for high-skilled immigrants and on domestically educated international students. These changes have been associated with gains in the relative performance of university-educated immigrants relative to native-born graduates in the two countries. Nevertheless, even comparing immigrants from the same source countries, it is clear that university-educated immigrants perform better in the United States than in Canada or Australia, leading the authors to conclude that immigrant self-selection is a crucial determinant of immigrant success.

B. Stepping Stone Immigration

Not all immigrants who arrive in a country remain there for the rest of their lives. While most of the leavers presumably return home, a surprisingly large fraction of migrants to Canada ultimately move to the United States. Ana Damas de Matos and Daniel Parent show that during the late 1990s, 6% of 25–29-year-old immigrants in Canada with a bachelor's degree moved to the United States over the next 5 years. The on-migration rate for males with a postgraduate degree was even higher, at nearly 30%. Using US census data, they show that these "two-step" migrants are better educated than immigrants from the same source country who moved directly to the United States; are more likely to hold a degree in engineering, math, or science; and perform extremely well in the labor market. Finally, the authors ask whether this superior performance of the two-step migrants is attributable to their stay in Canada (through training or language acquisition, for instance) or some other mechanism. They show that two-step migrants tend to move relatively soon after arrival in Canada, with little or no differential return in the US market to their experience in Canada versus their home country. These patterns lead them to conclude that Canada acts mainly as a "way station" for highly qualified immigrants, who find it relatively easier to enter Canada

¹ Akee and Jones (2019) estimate that about 40% of recent US immigrants who are observed working soon after their arrival ultimately leave.

than the United States and then take advantage of lower barriers between the two countries to ultimately move on to the United States.

IV. Local Labor Markets

Geographically dispersed countries like Canada and the United States contain many local labor markets. While simple economic models suggest that free trade and/or freely mobile workers can effectively arbitrage gaps between markets and transform the economy into a single national market, research over the past three decades has shown that an individual worker's success is heavily affected by his or her particular local labor market, even over longer time horizons. Three papers in this volume look carefully at the role of local labor markets in determining wages, employment rates, and intergenerational mobility.

A. How Do Local Labor Markets Respond to Demand Shocks?

Local labor markets in the United States appear to have diverged over the past three decades, with rapidly rising wages in some larger coastal cities, particularly for the most highly skilled workers. David Albouy, Alex Chernoff, Chandler Lutz, and Casey Warman present a side-by-side comparison of the effects of local labor demand shocks on wages, employment, population, and housing prices in the United States and Canada, highlighting the similarities and differences of responses to sectoral shocks and import competition shocks. They show that city-level employment responses to the omnibus shocks measured by Bartik's (1991) well-known shift-share variable are similar in the United States and Canada but that city populations respond more in Canada while housing prices respond much less, suggesting that supplyside limits on the growth of cities may be less binding in Canada. Focusing more narrowly on the import competition shocks associated with China's entry to the World Trade Organization in the 1990s, they find that manufacturing employment in Canada was not significantly reduced by competition from China, in contrast to the large negative effect in the United States first documented by Autor, Dorn, and Hanson (2013). Likewise, they find no effect on local unemployment rates in Canada, in contrast to the large impacts in the United States. They conclude that local labor market responses to general demand shocks are broadly similar in the two countries—albeit with the important difference in responses of housing prices—but that the effects of the Chinese trade shock were mitigated in Canada.

B. Local Differences in Intergenerational Mobility

In a widely cited study, Chetty et al. (2014) showed that the degree of intergenerational mobility between US parents and children born in the early 1980s varies enormously across counties. Marie Connolly, Miles Corak, and Catherine Haeck adapt the Chetty et al. methodology to Canada, using

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comparable tax records, the same age cohort, and the same rank-rank regression approach to summarize the strength of the connection between the incomes of parents and children. They find that the intergenerational correlation is substantially lower in Canada than in the United States, with an average rank-rank correlation of around 0.23 versus 0.34 in the United States. Indeed, the *average* correlation for Canada is comparable to the correlation in cities with the lowest correlations in the United States, such as Los Angeles (0.23) and Salt Lake City (0.26). But as in the United States, the strength of the parent-child correlation varies widely in Canada, with relatively low values (indicating higher rates of upward mobility between generations) in parts of Alberta, Saskatchewan, and Newfoundland and high intergenerational correlations (indicating lower rates of upward mobility) in many northern regions.

C. Spillover Effects of the Resource Boom

Over the past two decades, real wages have been relatively flat in the United States but have risen in Canada. The gains were particularly large in the three oil-rich provinces (Alberta, Saskatchewan, and Newfoundland) but were also significant in many other parts of the country. David Green, René Morissette, Ben Sand, and Iain Snoody ask whether the option of "commuting"—working in an oil-rich province but continuing to maintain a primary residence elsewhere—led to spillover effects that can account for the wage gains in other regions of the country. Using tax records that identify the fractions of residents in a given community who "commute," they find that the commuting option can explain a sizeable share of the wage gains experienced in the non-oil-rich provinces. By comparison, they find that the option of commuting played a far smaller role in the United States, in part because of the much smaller relative size of the resource extraction sector.

V. Heterogeneity in Human Capital

Canonical earnings models have a single form of "human capital" that is acquired by individuals in school or on the job and translated into earnings. While such models provide many insights, they cannot easily explain changes in relative wages for different subgroups of workers, nor do they provide much insight into why different children reach very different choices about how much schooling or training to acquire. Heterogeneous human capital provides a simple and elegant extension to the canonical framework, potentially helping to explain these and other issues.

A. Quantities and Prices of Human Capital in Canada and the United States

In simple models of wage determination, a worker's wage is the product of his or her human capital and the "price" of human capital in the relevant

period. If there are workers whose human capital is constant over time, then changes in their wages can be used to infer how the price of human capital has changed. Audra Bowlus, Chris Robinson, and Haoming Liu use this method, assuming that full-time male workers with 28-35 years of potential experience have fixed human capital, to derive prices of human capital for four education groups (dropouts, high school graduates, those with some college, and college graduates) in the United States and Canada over the past four decades. Their results suggest that since the early 1980s prices of human capital have declined by 15%-20% in both the United States and Canada for all education groups except dropout workers in Canada (whose prices have been roughly constant). They then use these series to compute the changes in the amounts of human capital possessed by individuals from different cohorts. They find that there was a substantial increase in effective human capital of newer cohorts of college graduates in both countries, starting with cohorts that entered the labor market in the early 1980s. Thus, their analysis attributes most of the rise in the college/high school wage premium that has occurred in both countries over the past four decades to changes in the quantity of human capital acquired by more recent cohorts of graduates rather than to a shift in relative prices induced by skill-biased technical change.

B. The Relative Importance of Cognitive and Noncognitive Skills

A growing body of research emphasizes that individuals possess both cognitive and noncognitive skills and that the latter set of skills are important mediators of labor market success. Michael Kottelenberg and Steven Lehrer study the relative effects of cognitive and noncognitive skills in educational attainment and early labor market outcomes using the Youth in Transition Survey from Canada and earlier results from a study of the National Longitudinal Survey of Youth in the United States. The authors investigate labor market outcomes for different subgroups through the lens of an educational investment model. They find that cognitive skills have large effects on labor market outcomes that mainly work through their effect on the probability of completing a postsecondary degree. They also find that parental expectations, proxied by information on whether parents have set aside savings for their children's college expenses, have a large effect on future labor market outcomes.

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