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# Foreign workers in Canada: Work permit holders versus employment income records, 2010 to 2022



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# ***Foreign workers in Canada: Work permit holders versus employment income records, 2010 to 2022***

by *Yuqian Lu and Feng Hou*

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## **Abstract**

As the role of temporary foreign workers in Canada's labour market has grown in significance, it has become essential to accurately measure their numbers for informing policy decisions related to the effectiveness and impact of various foreign worker programs. Two primary data sources have been used to determine the number of temporary foreign workers: data on work permit holders released by Immigration, Refugees and Citizenship Canada and data based on tax administrative files that identify temporary residents with earnings. This article aims to evaluate the benefits and limitations of these two data sources and compare the trends in the number of temporary foreign workers derived from them.

**Keywords:** temporary foreign workers, work permit, study permit

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Temporary foreign workers<sup>1</sup> have become an increasingly important source of labour supply in Canada. To track the impact of temporary foreign workers on the Canadian labour market and to inform policy decisions regarding the effectiveness and sustainability of various foreign worker programs, it is crucial to accurately measure the number of temporary foreign workers in Canada. However, estimating temporary foreign workers is not straightforward because of their complexity and transient status. The two most used data sources for estimating temporary foreign workers are statistics on work permit holders released by Immigration, Refugees and Citizenship Canada (IRCC) and statistics on temporary residents with earnings based on tax administrative files (e.g., Lu, 2020). This article discusses the advantages and limitations of these two data sources and compares the trends in the number of temporary foreign workers revealed by the two sources.

## Work permit holders

IRCC publishes data on the number of work permit holders by year and month in which the permit became effective and by December 31 of each year. These permit holders fall under two categories: the Temporary Foreign Worker Program (TFWP) and the International Mobility Program (IMP). The TFWP enables Canadian employers who have obtained a Labour Market Impact Assessment to recruit foreign workers to fill temporary job vacancies for which there are no suitable Canadian citizens or permanent residents available. The IMP seeks to attract foreign workers who can offer significant economic, social or cultural benefits to Canada; improve the country's competitiveness; or meet its bilateral or multilateral trade agreements. IMP work permit holders can be further classified based on their primary objective in Canada, namely work, study, humanitarian and compassionate (H&C), or permanent residency (PR) purposes.<sup>2</sup>

The number of work permit holders by effective year indicates the inflow of new work permit holders in a particular year. Given that work permit durations vary from a few months to a few years, some permit holders may leave Canada within the same year, while others may remain for several years. Consequently, the flow statistics do not reflect the total number of work permit holders present throughout the year.

Aside from the inflow measure, IRCC also publishes a stock measure, which is the number of valid work permit holders on December 31 of each year. However, the December 31 figure is typically lower than the number of valid work permit holders in earlier months, since work permits are more likely to expire toward the end of the year. For example, in 2019, there were around 675,000 valid work permit holders (for work purposes only) on January 31 and 632,000 on June 30, compared with 512,000 on December 31.<sup>3</sup> To estimate the total number of individuals who held a valid work permit during a year, the Non-permanent Resident File (NPRF) is used to derive a third measure: the number of valid permit holders at any time in a calendar year, which counts unique persons who ever held a valid work permit any time during a year.<sup>4</sup>

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1. A Library of Parliament report defines a temporary foreign worker as "a foreign national engaged in work activity who is authorized, with the appropriate documentation, to enter and to remain in Canada for a limited period" (Kachulis & Perez-Leclerc, 2020).
  2. For more details, please see [Temporary workers - Canada.ca](https://www.canada.ca/en/immigration-refugees-citizenship/services/working-canada/temporary-workers.html).
  3. The stock numbers on January 31 and June 30 were estimated from the Non-permanent Resident File.
  4. The number of valid work permit holders any time in a calendar year consists of (1) all new issues in the year and (2) permit holders who received multi-year permits in previous years and whose permits were valid any time in the year.

Table 1 presents the number of work permit holders under the TFWP and IMP for work purposes from 2010 to 2022, based on the three measures described above. The person counts of work permit holders with a valid work permit any time in a calendar year were significantly higher than the corresponding number on December 31, although the gap between the two sets of figures has decreased over time. For example, in 2015, the number of TFWP permit holders at any time during the year was 140% higher than the December 31 figure, but the gap continuously decreased, down to 49% in 2021. Over the same period, the corresponding difference for IMP permit holders for work purposes decreased from 38% to 20%. This reduction in the gaps is likely attributable to the prolonged average duration of work permits, resulting in fewer permits expiring within the year of issue.

In addition to IMP work permits for work purposes, work permit holders under the IMP for other purposes (i.e., study, H&C or PR) also form a growing part of all work permit holders in Canada. In 2021, they accounted for 30% of all work permit holders in the year, compared with 19% in 2015. In particular, the number of work permit holders for study purposes (mostly postsecondary co-op or internship) surpassed the number of TFWP work permit holders for the first time in 2021 (see Chart 1).

**Table 1**  
**Number of work permit holders for work purposes, 2010 to 2022**

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
	counts												
<b>New issues<sup>1</sup></b>													
Temporary Foreign Worker Program	..	..	..	..	..	72,965	78,450	78,470	84,000	98,030	84,105	103,340	136,350
International Mobility Program for work purposes	..	..	..	..	..	176,280	207,565	222,720	253,365	303,545	240,515	310,660	472,070
<b>Valid work permit holders on December 31<sup>1</sup></b>													
Temporary Foreign Worker Program	92,090	81,530	86,510	103,910	93,750	60,000	51,070	46,055	56,030	73,360	76,405	81,495	119,825
International Mobility Program for work purposes	158,855	187,175	208,655	235,860	257,545	251,015	288,220	321,065	369,825	439,095	452,625	438,315	677,400
<b>With a valid work permit any time in calendar year<sup>2</sup></b>													
Temporary Foreign Worker Program	174,900	160,100	164,800	176,000	169,600	143,700	117,900	108,200	114,400	133,600	136,300	145,800	..
International Mobility Program for work purposes	225,700	257,600	292,300	325,400	342,600	347,400	379,100	422,600	481,700	563,900	580,400	526,300	..

.. not available for a specific reference period

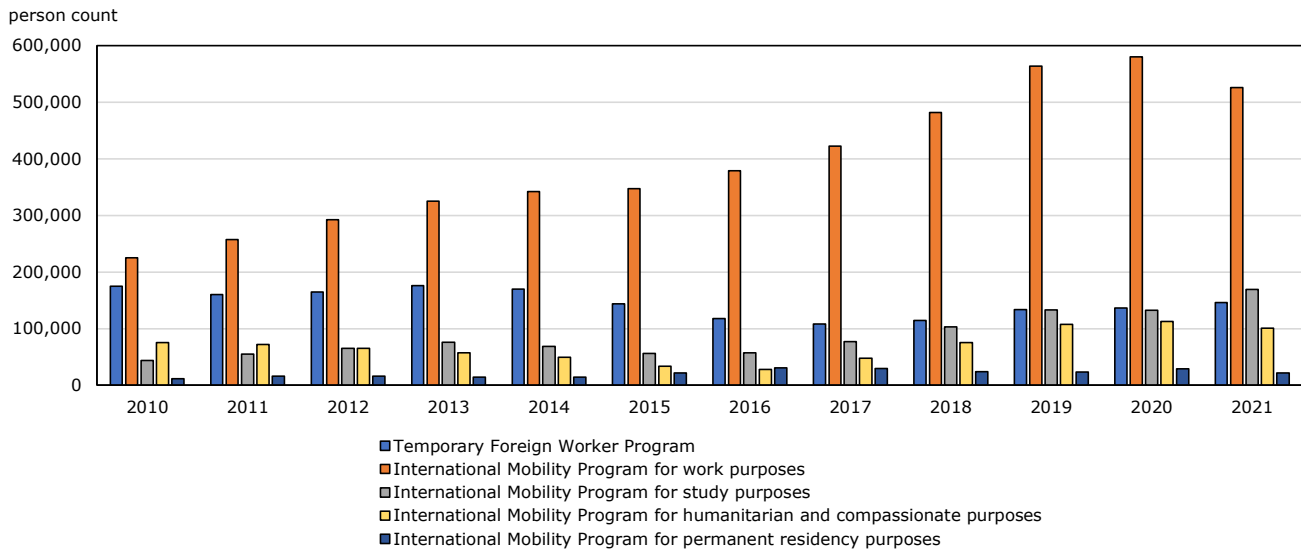
1. Government of Canada and Government Open Portal.

2. Non-permanent Resident File.

**Note:** The numbers of work permit holders any time in a year are rounded to the nearest 100.

**Sources:** Statistics Canada, Non-permanent Resident File; and Government of Canada, Open Government Portal.

**Chart 1**  
**Number of work permit holders in calendar year, 2010 to 2021**



**Note:** The numbers of work permit holders any time in a year are rounded to the nearest 100.  
**Source:** Statistics Canada, Non-permanent Resident File.

One major advantage of the work permit data is their ability to provide monthly updates on work permit holders. Nevertheless, the number of work permit holders does not indicate how many were actively engaged in the labour market. Some may not have worked in Canada,<sup>5</sup> while some temporary residents with other status<sup>6</sup> are allowed to participate and have participated in the labour force.

## Employment income records

To determine the number of employed temporary residents in the labour force, the NPRF can be matched with income tax-based administrative files. Temporary residents<sup>7</sup> with annual T4 earnings or self-employment income are identified as temporary foreign workers who were employed at some point during the year.<sup>8</sup> The results are presented in Table 2.

5. Some work permit holders probably did not come to Canada, some may have left the country before their permit expired and some came but did not work.  
 6. Foreign nationals may work in Canada without a work permit if their activity is described in paragraphs 186(a) to 186(x) of the *Immigration and Refugee Protection Regulations* or under the Global Skills Strategy public policy for short-term work and 120-day work for researchers (Government of Canada, n.d.). Most foreign nationals who work without a work permit are international students enrolled in postsecondary educational institutions. Also see footnote 9.  
 7. In this analysis, permit holders who became landed immigrants during the year were excluded from the annual counts.  
 8. This yearly employment incidence based on annual earnings is generally much higher than the employment rate based on the employment status in a reference week, as in the Labour Force Survey.

**Table 2**  
**Number of temporary residents with positive employment income in Canada, 2010 to 2020**

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
	counts										
<b>With T4 earnings or self-employment income</b>	<b>357,000</b>	<b>375,600</b>	<b>411,600</b>	<b>446,100</b>	<b>476,000</b>	<b>491,300</b>	<b>525,300</b>	<b>608,600</b>	<b>733,200</b>	<b>877,500</b>	<b>890,200</b>
Work permit holders	318,100	334,900	369,800	404,000	411,800	389,800	404,200	453,600	539,800	657,300	703,800
Temporary Foreign Worker Program	133,200	124,500	133,000	144,100	139,900	116,800	98,600	94,600	100,000	115,500	117,000
International Mobility Program for work purposes	113,400	132,800	157,000	182,700	200,400	210,000	237,500	270,300	315,700	379,200	407,700
Post-Graduation Work Permit Program	23,300	30,800	40,000	51,800	63,400	70,800	93,000	105,300	129,700	168,500	226,000
International Mobility Program for study purposes	23,400	28,700	33,500	37,700	37,800	31,900	32,800	46,200	65,100	81,800	82,400
International Mobility Program for humanitarian and compassionate purposes	40,200	37,300	35,500	30,000	24,700	18,000	15,800	24,300	44,900	66,400	77,400
International Mobility Program for permanent residency purposes	7,900	11,600	10,800	9,600	9,000	13,100	19,500	18,300	14,100	14,300	19,300
Study permit holders	18,100	18,300	18,900	19,700	40,500	74,500	95,500	129,500	164,900	188,000	153,000
Other temporary residents	20,700	22,400	22,900	22,400	23,700	26,900	25,600	25,600	28,500	32,100	33,400
<b>With T4 earnings</b>	<b>347,300</b>	<b>365,100</b>	<b>401,100</b>	<b>435,300</b>	<b>464,800</b>	<b>479,600</b>	<b>512,900</b>	<b>594,100</b>	<b>715,500</b>	<b>851,700</b>	<b>860,900</b>
Work permit holders	311,100	327,100	362,000	395,700	403,400	381,700	395,600	443,500	527,400	639,500	682,500
Temporary Foreign Worker Program	132,000	123,400	132,000	143,000	138,900	116,000	98,100	94,200	99,700	115,200	116,600
International Mobility Program for work purposes	111,200	130,000	153,900	179,100	196,500	206,000	233,000	265,000	309,800	371,600	399,000
Post-Graduation Work Permit Program	22,900	30,200	39,400	51,200	62,500	69,800	91,800	103,800	128,200	166,200	222,800
International Mobility Program for study purposes	23,300	28,400	33,100	37,300	37,400	31,600	32,500	45,700	64,200	80,300	80,400
International Mobility Program for humanitarian and compassionate purposes	37,400	34,400	32,900	27,500	22,300	16,200	14,100	21,800	40,600	59,400	68,800
International Mobility Program for permanent residency purposes	7,300	10,800	10,000	8,800	8,200	11,900	18,000	16,800	13,000	12,900	17,600
Study permit holders	18,000	18,200	18,700	19,600	40,100	73,700	94,200	127,600	162,500	183,500	148,400
Other temporary residents	18,200	19,700	20,400	20,000	21,300	24,300	23,100	23,000	25,700	28,700	30,000
<b>Without T4 earnings but with self-employment income</b>	<b>9,700</b>	<b>10,500</b>	<b>10,500</b>	<b>10,800</b>	<b>11,200</b>	<b>11,600</b>	<b>12,400</b>	<b>14,600</b>	<b>17,600</b>	<b>25,800</b>	<b>29,300</b>
Work permit holders	7,000	7,800	7,900	8,400	8,400	8,100	8,600	10,200	12,400	17,800	21,400
Temporary Foreign Worker Program	1,200	1,100	1,100	1,100	1,000	800	500	400	300	300	400
International Mobility Program for work purposes	2,100	2,700	3,000	3,500	3,800	4,000	4,500	5,300	5,800	7,600	8,800
Post-Graduation Work Permit Program	400	500	600	700	800	1,000	1,300	1,500	1,600	2,300	3,200
International Mobility Program for study purposes	200	300	300	400	400	300	400	500	800	1,500	2,000
International Mobility Program for humanitarian and compassionate purposes	2,800	2,900	2,600	2,500	2,300	1,800	1,700	2,500	4,300	7,000	8,600
International Mobility Program for permanent residency purposes	700	800	800	800	800	1,200	1,500	1,400	1,100	1,400	1,600
Study permit holders	100	100	100	100	500	900	1,300	1,800	2,400	4,600	4,600
Other temporary residents	2,500	2,600	2,500	2,300	2,400	2,600	2,500	2,600	2,800	3,400	3,400

**Notes:** Numbers are rounded to the nearest 100. As a result of rounding, the sum of subcategories may not equal to the total.

**Sources:** Statistics Canada, Non-permanent Resident File and Longitudinal Worker File.



Comparing the number of valid work permit holders in a year (bottom panel of Table 1) with the number of work permit holders who earned employment income (top panel of Table 2) reveals that the employed share of TFWP permit holders rose from 76% in 2010 to 86% in 2020. Among IMP work permit holders for work purposes, the employed share increased from 50% in 2010 to 70% in 2020.

Table 2 also indicates a significant rise in the number of employed non-work permit holders over the 2010-to-2020 period. Specifically, the number of employed study permit holders<sup>9</sup> (excluding those holding a work permit in the same year) increased from 18,100 in 2010 to 188,000 in 2019, before declining to 153,000 in 2020 because of the COVID-19 pandemic's impact on international students' arrival to Canada. Additionally, the proportion of employed study permit holders among employed temporary foreign workers surged from 5% in 2010 to 21% in 2019.

The number of employed temporary residents grew 149% from 2010 to 2020. The majority (74%) of the growth was attributable to current and former international students, including Post-Graduation Work Permit (PGWP) holders, work permit holders for study purposes and study permit holders.<sup>10</sup> By comparison, over the same period, the number of valid work permit holders for work purposes on December 31 increased 108% and the number of valid work permit holders for work purposes any time in a year increased 78% (based on statistics in Table 1). Therefore, the number of employed temporary residents has grown much faster than the number of work permit holders for work purposes.

In 2020, the total number of employed temporary residents accounted for 4.2% of all individuals reporting annual employment income (include self-employment income) in Canada, compared with 1.9% in 2010.

Table 2 also shows that only a small share (3% in 2020) of employed temporary residents were solely engaged in self-employment, although their number tripled from 2010 to 2020. Previous studies on employed temporary residents only considered paid employees (i.e., with T4 earnings) (e.g., Lu, 2020; Lu & Hou, 2019). The statistics in this article suggest that self-employment is an emerging phenomenon among temporary residents and should be included in counting temporary residents with employment income.

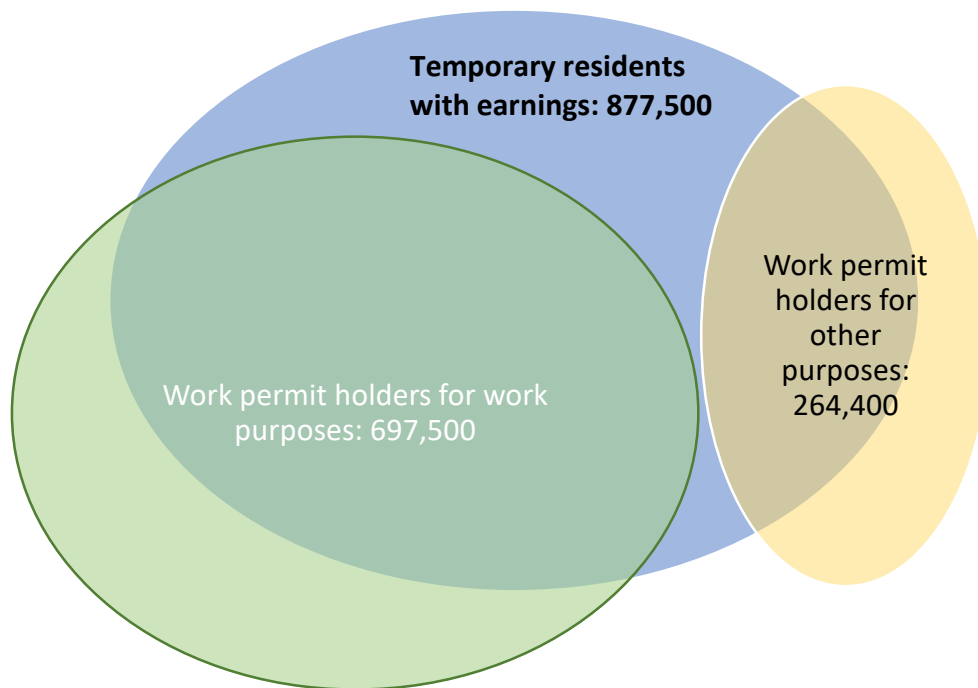
Finally, 2019 statistics are used as an example to illustrate the intersection between the number of work permit holders and the number of temporary residents with income (both employment and self-employment income) (Figure 1). Overall, there were 697,500 work permit holders for work purposes in 2019 (the sum of TFWP permit holders and IMP permit holders for work purposes in Table 1), of whom 494,700 (or 71%) had employment income in Canada. There were 264,400 work permit holders for other purposes (e.g., study and H&C), of whom 162,500 (or 61%) had employment income. In the same year, about 877,500 temporary residents had employment income in Canada, including 494,700 work permit holders for work purposes (56%), 162,500 work permit holders for non-work purposes (19%) and 220,100 temporary residents with other residency status (25%).

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9. Starting in 2014, study permit holders pursuing postsecondary education at a designated institution are automatically authorized to work off campus for up to 20 hours per week during the academic session and full time during scheduled breaks, without the need to apply for a separate work permit. Before 2014, study permit holders were allowed to work on campus, but had to apply for an off-campus work permit to be able to work up to 20 hours per week off campus during the academic session and full time during scheduled breaks (Crossman, Choi & Hou, 2021).

10. Many study permit holders also hold valid work permits, mostly under programs for study purposes or a PGWP, in the same calendar year. They are classified as work permit holders in this article. For example, in 2020, among 345,000 study permit holders who received T4 earnings, the majority also held either a work permit for study purposes or a PGWP in the same year, while 148,400 did not hold a work permit.

**Figure 1**  
**Intersection of work permit holders and temporary residents with earnings, 2019**



**Sources:** Statistics Canada, the Non-permanent Resident File and Longitudinal Worker File.

In summary, IRCC’s statistics on work permit holders provide up-to-date information on the inflow and stock of foreign nationals coming to Canada primarily for work purposes. However, as some work permit holders probably did not work in Canada in a given year, and many other eligible temporary residents are not required to have a work permit to participate in the labour force, the number of employed temporary residents derived from tax records provides another important measure of the role of temporary foreign workers in the national labour force. One major limitation of the statistics on employed temporary residents is that they are usually two years out of date. In the absence of a better data source, to produce more updated estimates of employed temporary foreign workers, labour force participation rates of work permit and non-work permit holders, based on employment income records, can be applied to IRCC’s monthly and yearly temporary resident records.

## Data and definitions

The Government of Canada’s Open Government Portal provides data on the number of permit holders by effective year and by December 31 of each year.<sup>11</sup> The number of work permit holders at any time in a year was obtained from the NPRF, which contains information on all temporary residents who have received a temporary permit (excluding visitor permits) to enter Canada since 1980. The number of employed temporary residents presented in Table 2 was derived from linking the NPRF with the Longitudinal Worker File, which has individual records from the T1 and T4 administrative files and is updated up to 2020.

11. [https://search.open.canada.ca/opendata/?\\_organization\\_limit=0&organization=cic&owner\\_org=cic&page=1&sort=date\\_modified+desc](https://search.open.canada.ca/opendata/?_organization_limit=0&organization=cic&owner_org=cic&page=1&sort=date_modified+desc).

This article counts each temporary foreign resident only once per calendar year. In determining the yearly permit type for individuals with multiple types of permits in a year, this analysis prioritizes the TFWP, followed by the IMP for work purposes, the IMP for study purposes, the IMP for H&C purposes, the IMP for PR purposes, study permits and other permits.

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