

SASKATCHEWAN

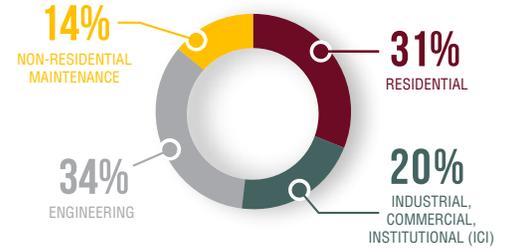
Re-calibration ahead as resource expansion slows

HIGHLIGHTS 2017-2026

Construction demands in Saskatchewan are expected to soften in 2017 and 2018, but employment is sustained at high levels. The current pause as commodity prices weakened over the last few years follows a period of extraordinary resource expansion and historically high levels of activity and employment. Looking forward, residential activity regains its footing in 2017 and a series of planned major projects are expected to come on stream, restoring workforce requirements to previous peak levels by 2021. Sustaining capacity to meet these and rising maintenance requirements is predicated on industry's ability to continue attracting and training workers during a period of lower growth.

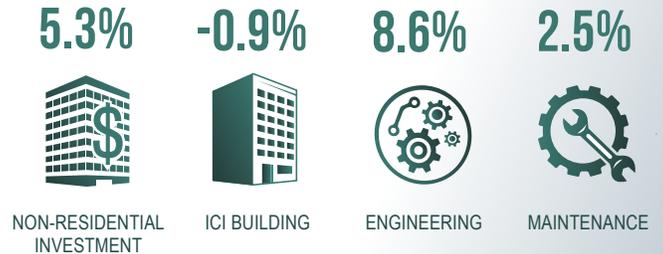
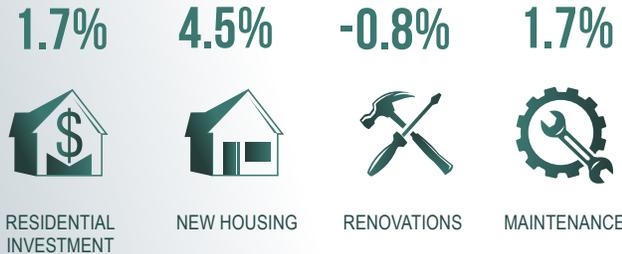
DISTRIBUTION OF CONSTRUCTION EMPLOYMENT IN 2017, SASKATCHEWAN

2017



2017 SECTOR INVESTMENT GROWTH OUTLOOK FOR SASKATCHEWAN (% change)

2017



10-YEAR WORKFORCE OUTLOOK FOR SASKATCHEWAN

2026



AVERAGE UNEMPLOYMENT RATE 7.0%

-5,200 (-10.5%) EMPLOYMENT CHANGE

HIGHLIGHTS

- Following sharp declines in 2014 and 2015, new housing construction is expected to recover in 2017, sustaining stable levels of residential employment through to 2022.
- Industrial, commercial and institutional (ICI) building requirements are expected to slow over the near term despite rising industrial requirements. ICI and maintenance are key sources of modest growth over the latter half of the scenario period.
- Driven by the demands of planned mining, utility and pipeline projects, engineering-related demands are expected to strengthen after 2019, restoring employment to previous highs by 2021, but decline over the remainder of the period as known projects wind down.
- Overall employment demands weaken and then rise in 2020 and 2021, recovering to current levels. Slowing population growth and major project completions see total employment decline in the latter part of the scenario, decreasing by 5,100 jobs, or 10 percent, by 2026 compared to 2016.

BuildForce's LMI System

BuildForce Canada uses a scenario-based forecasting system to assess future labour market conditions in both residential and non-residential construction. This labour market information (LMI) system tracks measures for 34 trades and occupations. BuildForce consults with industry, including owners, contractors and labour groups, to validate the scenario assumptions and construction project lists, and seeks input from government on related analysis. The system distills labour market conditions into ranks to provide signals to industry employers.

SASKATCHEWAN CONSTRUCTION OUTLOOK

Led by rising commodity prices, the Saskatchewan economy expanded rapidly over the last decade. While the oil price collapse hit many provinces hard in 2015, the price of potash peaked in 2009. Lower commodity prices and weaker global demand slowed resource developments and contributed to slower population growth and a decline in housing starts in 2013 and 2014. The oil price collapse that started in late 2014 accelerated in 2015, which further dampened overall economic conditions in the province, and housing starts and residential employment continued to fall in 2015. Looking forward, more stable residential employment demands and a second wave of planned utility, mining and pipeline-related major projects is anticipated to restore employment to previous high levels between 2019 and 2021.

Saskatchewan's residential sector, following recent declines, is expected to strengthen in 2017. Modest gains in housing starts are projected to continue over the near term sustaining stable levels of employment through to 2022. Continued housing market uncertainty, however, dampens the outlook for renovation activity. Starting in 2023, slower population growth and declining household formations¹ reduce housing starts and related employment. Over the entire scenario period, residential employment is expected to decline by almost 10 percent, or by 1,400 jobs.

Non-residential employment demands are expected to weaken marginally over the near term, as declines in engineering investment coincide with an anticipated decline in commercial and institutional building construction in 2017. Growth resumes after 2019 with an expected rise in major project demands, elevating non-residential employment to a new peak by 2021. The completion of major projects sees employment decline over the remainder of the scenario period, but rising maintenance and sustaining capital work requirements help support employment at relatively high levels.

Saskatchewan has cultivated a large, young and skilled workforce, trained to meet specialized residential- and engineering-sector demands. The extraordinary resource expansion of the last decade pushed construction unemployment rates well below historical levels and attracted thousands of workers to the province. The province's rising unemployment rates between 2013 and 2016 are attributed to both job losses and workers returning from other provinces as work slows in other regions. These changing market dynamics created new challenges for Saskatchewan following several years of strong growth. The current pause in growth provides an opportunity for the labour market to re-calibrate to meet the changing nature of construction demands as residential slows and major projects wind down combined with the need to address the aging workforce.

SECTOR INSIGHTS

The following sections provide sector-specific insights into the non-residential and residential labour markets. The 2017 BuildForce LMI system provides an overview of market drivers and detailed occupational demand- and supply-side analysis of labour market conditions in each sector for 34 trades and occupations tracked by BuildForce.

NON-RESIDENTIAL SECTOR

Non-residential employment requirements are anticipated to continue a modest decline in the near term, driven by slowing levels of engineering activity and a down-cycle in commercial and institutional investment. Figure 1 tracks the change in employment by sector for key reference points across the scenario period, including the start in 2017, at the expected peak in 2021 and then at the end of the period in 2026.

Demand requirements are expected to rise to a new peak in 2021, but much depends on the timing of proposed major projects. Once projects are complete, employment is expected to decline over the later part of the scenario period, but remain at relatively high levels.

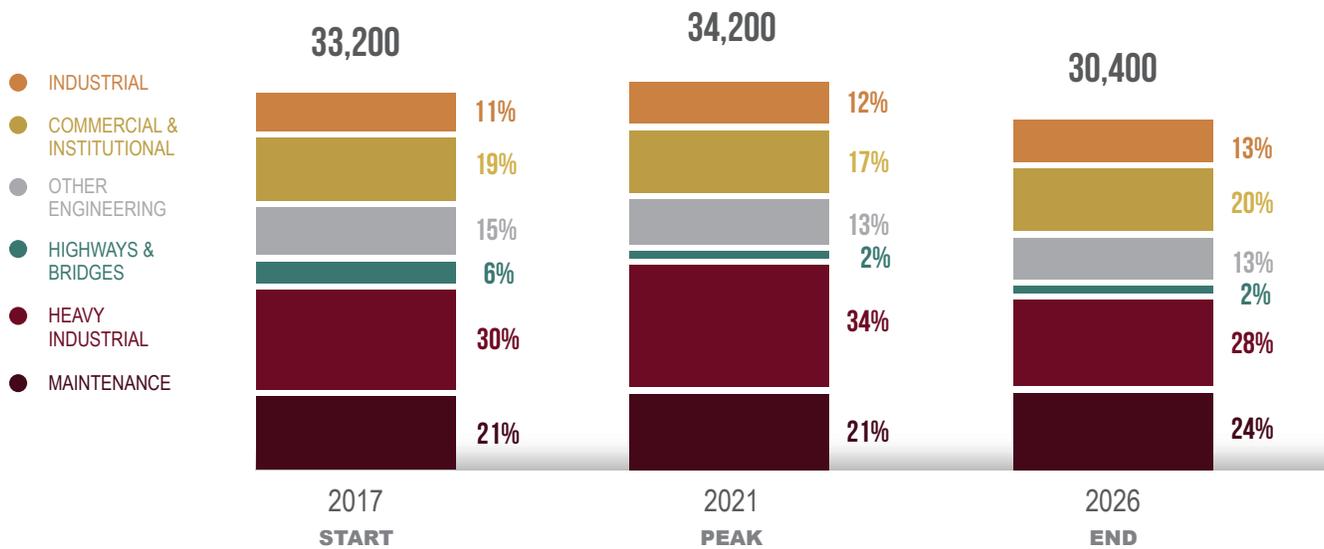
Engineering demands, which constitute about half of the province's total non-residential employment, rose slightly in 2016, but move lower in 2017 and over the near term with the completion of road, highway and bridge work and various heavy industrial projects. More robust engineering employment growth is expected as planned utility, pipeline and mining projects come on stream, adding 2,200 jobs, or 15 percent by 2021.

Commercial and institutional building, which have been key sources of employment growth over the past four years, cycle down in 2017 due to government budget constraints and tepid residential growth. A continued rise in industrial construction, driven by a recovering manufacturing sector, partly offsets declines, sustaining overall ICI building employment near current levels. Modest growth is anticipated to resume after 2019 when ICI building is expected to be the primary source of non-residential employment growth later in the scenario period.

At the end of the decade, non-residential construction employs 3,700 fewer workers, an 11 percent decline compared to 2016, and ICI building and maintenance play a more prominent role, employing 60 percent of the non-residential workforce over the long term. Despite the modest decline, employment is expected to remain at high levels, and age-related exits maintain pressure on the industry to replace retiring workers.

¹ **Household formation** refers to the change in the number of households (persons living under one roof or occupying a separate housing unit) from one year to the next. It is the means by which population growth is transformed into demand for new housing.

Figure 1: Non-residential employment distribution by sector, Saskatchewan, 2017, 2021 and 2026



Source: Statistics Canada, BuildForce Canada

Table 1 summarizes the percent change in employment by sector across two periods: the first captures the lead up to the expected peak in 2021 and the second, across the remainder of the scenario period to 2026.

Figure 2 shows the employment trends by sector for non-residential construction.

THE AVAILABLE WORKFORCE

Saskatchewan’s non-residential workforce is adjusting to lower demands following an extraordinary period of expansion, which brought unemployment rates well below historical norms and attracted new young workers to the province. Slowing demand and the return of workers from Alberta as construction activity slows there resulted in an increase in unemployment in 2016. Slowing construction activity may lead some workers to exit Saskatchewan’s non-residential market in the near term, but the industry will need to attract many back by 2020 to meet the expected increase in construction requirements.

The BuildForce LMI system tracks supply and accounts for the change in the available labour force, including retirements, new entrants² and net in-mobility³. An estimated 6,000 workers are anticipated to exit the province’s non-residential workforce over the coming decade due to retirements, which are anticipated to be offset by an estimated 7,500 first-time new entrants to the construction workforce from the local population aged 30 and younger.

Table 1: Change in non-residential employment by sector, Saskatchewan

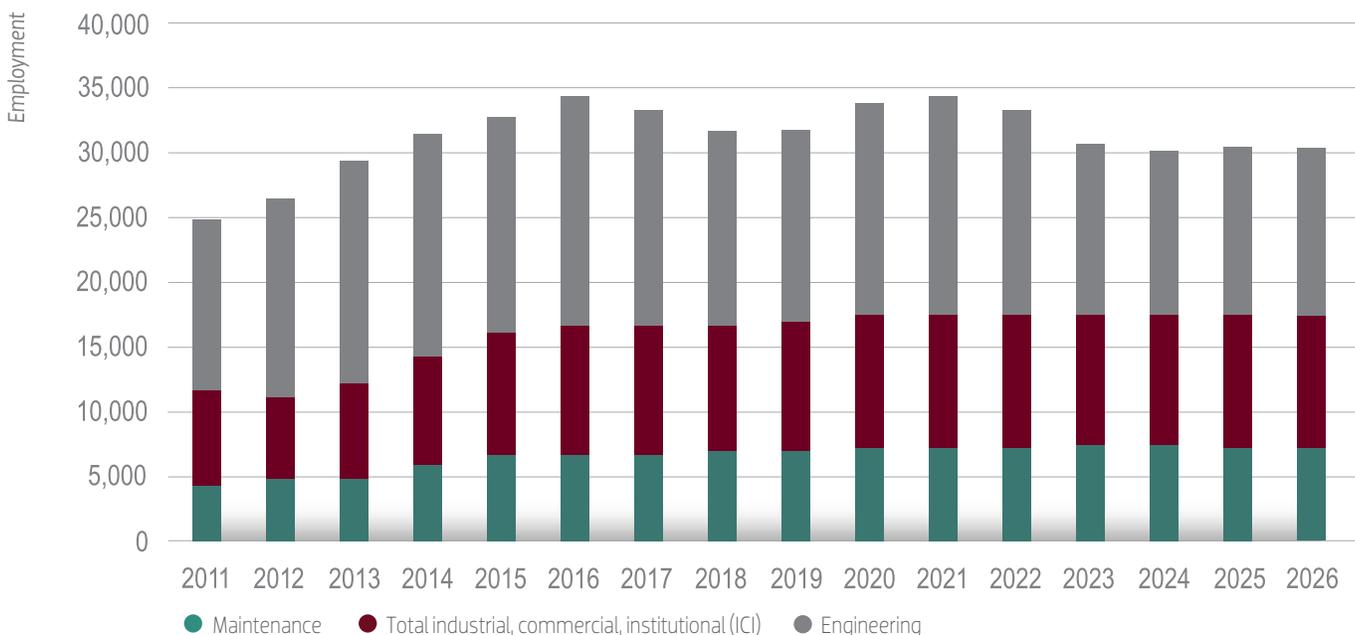
SECTOR		% CHANGE 2017–2021	% CHANGE 2022–2026
Total non-residential employment		0%	-11%
ICI	Industrial	27%	-5%
	Commercial, institutional and government	-11%	4%
Engineering	Highways and bridges	-62%	-8%
	Heavy industrial	14%	-29%
	Other engineering	-19%	-11%
Maintenance		9%	1%

Source: Statistics Canada, BuildForce Canada

² **New entrants** are measured by applying the traditional proportion of the provincial workforce that enters the construction industry. The projected estimate across the scenario period assumes that the construction industry is able to recruit this group in competition with other industries.

³ **In-mobility** refers to the arrival of workers from outside the local construction industry. In-mobility includes the interprovincial employee workforce described above. Many members of this group will move quickly out of the province as work declines and this out-mobility, even if it is a very short-term change, signals a weak market.

Figure 2: Non-residential construction employment growth outlook, Saskatchewan



Source: Statistics Canada, BuildForce Canada

Table 2: Change in the non-residential workforce, Saskatchewan

NON-RESIDENTIAL WORKFORCE ADJUSTMENT		2016	5 years 2017–2021	10 years 2017–2026
	Employment	1,500	100	-3,700
Demand	Labour force change	2,000	-900	-4,700
	Retirements	-600	-2,900	-6,000
Supply	New entrants	800	3,800	7,500
	Net mobility	1,800	-1,800	-6,100

Source: BuildForce Canada

NON-RESIDENTIAL HIGHLIGHTS

- Total non-residential employment requirements moderate in 2017 and 2018, then add employment opportunities to meet rising ICI building and major project demands.
- Peaks in major project demands include:
 - current highway and bridge construction that decline after 2017
 - planned mining projects that raise engineering demand from 2020 to 2023
 - pipeline demands that rise in 2017 and build to peak levels in 2019 as projects overlap
 - utility-related natural gas and hydro projects that remain elevated between 2017 and 2019
- Project completions after 2021 release more than 4,000 workers, but many are likely to be absorbed by rising maintenance and other non-residential construction markets.

Table 2 provides a summary of changes in the non-residential workforce in 2016, the five-year period between 2017 and 2019 and across the full scenario period.

The BuildForce ranking system isolates market conditions specific to non-residential construction. The results are summarized in Table 3.

NON-RESIDENTIAL RANKINGS, RISKS AND MOBILITY

BuildForce assesses market conditions for 34 construction trades and occupations using a ranking system that combines measures of the change in employment, unemployment, net in-mobility and adjustments based on industry input. The rankings reflect non-residential market conditions unique to Saskatchewan based on current and proposed construction activity. In addition, assumptions on provincial economic and population growth, new entrants to the labour force and migration patterns (interprovincial and international) are built into the forecast scenario and included in the ranking assessment.

The rankings for some trades working in the non-residential sector are suppressed due to the small size of the workforce (<100 workers) and limited statistical reliability when assessing labour market conditions at the sector level. Trades may also be excluded because they typically do not work in the sector being assessed (e.g., home building and renovation managers in non-residential). For Saskatchewan, non-residential rankings are reported for 28 trades and occupations.

Table 3 provides non-residential rankings for Saskatchewan, showing generally balanced to weaker markets across the first half of the scenario period. Conditions were generally balanced in 2016, signalled by a rank of 3, but falling engineering demands and declines in ICI building requirements soften conditions in 2017 and 2018. Market conditions for some trades tighten in 2019 as proposed major projects activity increases, but then start to weaken in 2022 and 2023 as projects peak and wind down. By the end of scenario period overall conditions return to balance.

MARKET RANKINGS

1	Workers meeting employer qualifications are available in local markets to meet an increase in demand at the current offered rate of compensation and other current working conditions. Excess supply is apparent and there is a risk of losing workers to other markets.
2	Workers meeting employer qualifications are available in local markets to meet an increase in demand at the current offered rate of compensation and other working conditions.
3	The availability of workers meeting employer qualifications in the local market may be limited by large projects, plant shutdowns or other short-term increases in demand. Employers may need to compete to attract needed workers. Established patterns of recruiting and mobility are sufficient to meet job requirements.
4	Workers meeting employer qualifications are generally not available in local markets to meet any increase. Employers will need to compete to attract additional workers. Recruiting and mobility may extend beyond traditional sources and practices.
5	Needed workers meeting employer qualifications are not available in local markets to meet current demand so that projects or production may be delayed or deferred. There is excess demand, competition is intense and recruiting reaches to remote markets.
N/A	The labour market assessment for some trades is limited by the small size of the workforce (<100 employed). In consultation with the provincial LMI committee, the rank is suppressed because of limited statistical reliability.

Table 3: Non-residential market rankings, Saskatchewan

TRADES AND OCCUPATIONS – NON-RESIDENTIAL	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Boilermakers	2	3	2	3	4	3	3	2	3	3	3
Bricklayers	3	2	2	3	4	3	3	2	3	3	3
Carpenters	3	3	2	3	4	3	3	2	3	3	3
Concrete finishers	3	2	2	3	3	3	3	2	3	3	3
Construction estimators	2	2	2	2	3	3	3	2	3	3	3
Construction managers	3	2	2	2	3	3	3	2	3	3	3
Construction millwrights and industrial mechanics	3	3	3	3	2	3	2	2	3	3	3
Contractors and supervisors	3	2	2	3	3	3	3	2	3	3	3
Crane operators	3	3	2	3	3	3	3	2	3	3	3
Electrical power line and cable workers	3	2	2	3	4	4	2	2	2	3	3
Electricians	3	3	2	3	4	3	3	2	3	3	3
Floor covering installers	3	2	3	3	3	3	3	3	3	3	3
Glaziers	3	3	3	3	3	3	3	3	3	3	3
Heavy equipment operators (except crane)	3	3	2	3	3	3	2	2	3	3	3
Heavy-duty equipment mechanics	3	2	2	2	2	3	3	2	3	3	3
Insulators	3	3	3	3	4	3	3	2	3	3	3
Ironworkers and structural metal fabricators	2	2	2	3	3	3	2	2	3	3	3
Painters and decorators (except interior decorators)	3	2	3	3	3	3	3	3	3	3	3
Plasterers, drywall installers and finishers and lathers	2	3	3	3	3	3	3	3	3	3	3
Plumbers	3	2	2	3	4	3	3	2	2	3	3
Refrigeration and air conditioning mechanics	3	2	3	3	3	3	3	3	3	3	3
Residential and commercial installers and servicers	3	2	3	3	3	3	3	3	3	3	3
Roofers and shinglers	3	2	2	3	4	3	3	2	3	3	3
Sheet metal workers	3	2	2	3	4	3	3	2	3	3	3
Steamfitters, pipefitters and sprinkler system installers	3	3	2	3	4	3	3	2	3	3	3
Trades helpers and labourers	3	2	2	3	4	3	2	2	3	3	3
Truck drivers	3	3	2	3	3	3	2	2	3	3	3
Welders and related machine operators	3	2	2	3	4	3	2	2	3	3	3

Source: BuildForce Canada

RESIDENTIAL SECTOR

A strong economy and population growth fueled demand for housing starts, carrying housing construction and employment to record high levels in 2012. Since then, falling commodity prices and slowing resource development have contributed to slowing population growth and weakening housing market conditions.

Saskatchewan’s residential sector is expected to strengthen in 2017 with a small projected increase in new housing construction, and remain mostly unchanged over the medium term, sustaining stable levels of employment through 2022. Projected slower popu-

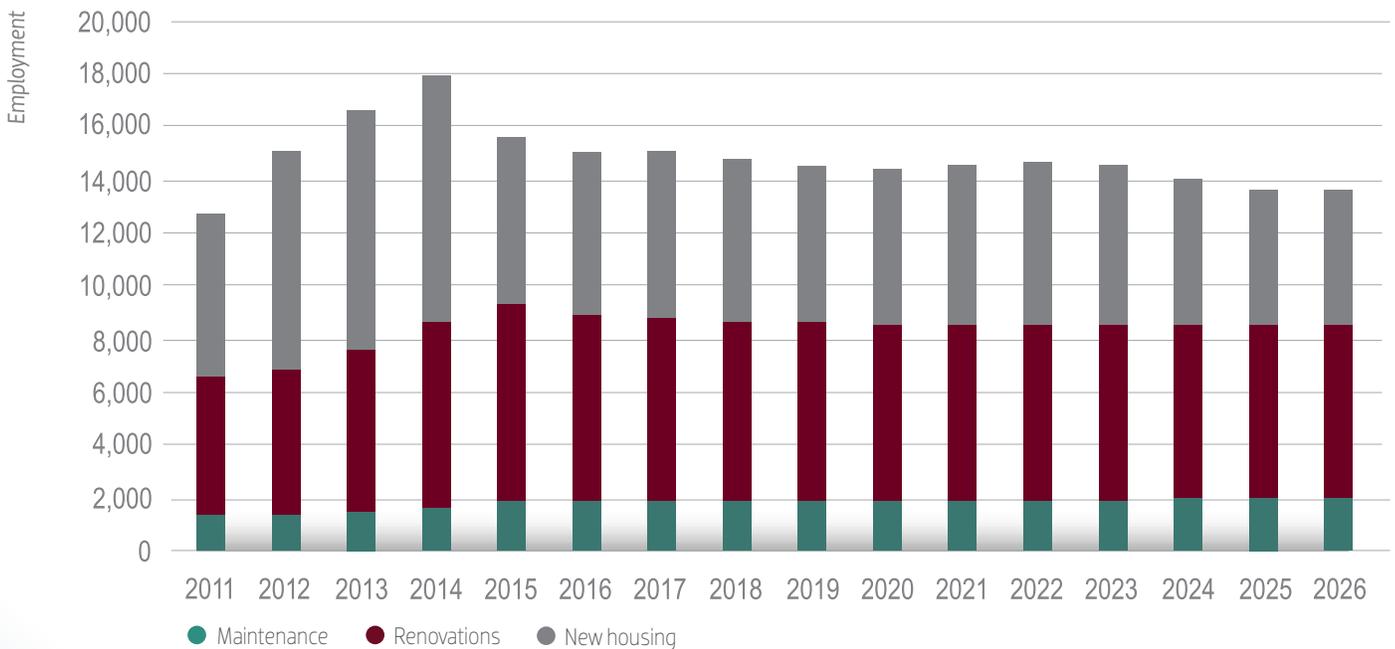
lation growth over the long term translates into a more pronounced decline in housing construction after 2023, leaving overall residential construction employment down by an estimated 1,400 workers by the end of the scenario period.

Figure 3 shows the employment trends by sector for residential construction.

THE AVAILABLE WORKFORCE

Strong labour demands in 2012 and 2013 had driven residential construction unemployment in Saskatchewan to record low levels. The slowdown in new housing resulted in rising unemployment in 2014, well ahead of the oil price collapse. Most of the residential

Figure 3: Residential construction employment growth outlook, Saskatchewan



Source: Statistics Canada, BuildForce Canada

RESIDENTIAL HIGHLIGHTS

- Housing starts, which have fallen by half from a peak of 10,000 units in 2012, are expected to remain near current levels over most of the scenario period.
- Renovation market activity remains mostly unchanged across the scenario period, but as new housing slows, renovation

and maintenance work account for more than half of total residential employment.

- Total residential employment remains relatively unchanged from 2016 levels through 2022. Declines concentrated late in the scenario period leave employment lower by 1,400 jobs, or 10 percent, by 2026.

Table 4: Changes in the residential workforce, Saskatchewan

RESIDENTIAL WORKFORCE ADJUSTMENT		2016	5 years 2017–2021	10 years 2017–2026
	Employment	-600	-400	-1,400
Demand	Labour force change	-900	-800	-1,700
	Retirements	-300	-1,500	-3,100
Supply	New entrants	300	1,500	2,900
	Net mobility	-900	-700	-1,500

Source: BuildForce Canada

declines have already occurred and a re-balancing of market conditions is underway. As activity slows, the labour force contracts, with overall unemployment rates settling in well above the record lows reported in 2012 during peak levels of activity.

Despite expected slower long-term growth, industry must still contend with an aging workforce and the exit of an estimated 3,100 workers over the coming decade due to expected retirements. Attracting an estimated 2,900 first-time new entrants to the construction workforce from the local population aged 30 and younger may prove challenging during periods of slower growth.

Table 4 provides a summary of the estimated changes in the residential workforce in 2016, the five-year period between 2017 and 2021, and across the full 2017–2026 scenario period.

RESIDENTIAL RANKINGS, RISKS AND MOBILITY

Table 5 shows labour markets that were still recovering in 2016 move toward more balanced conditions in 2017 and remain generally balanced across most of the scenario period. Conditions for trades more heavily involved in new construction weaken with the expected down-cycle starting in 2023.

The rankings for some trades working in the residential sector are suppressed due to the small size of the workforce (<100 workers) and limited statistical reliability when assessing labour market conditions at the sector level. Trades may also be excluded because they typically do not work in the sector being assessed (e.g., boilermakers, millwrights, etc. in residential construction). For Saskatchewan, residential rankings are reported for 16 trades and occupations.

PLANNING FOR SLOWER GROWTH

Following several years of strong growth, Saskatchewan's labour market is expected to slow over the long term, but changing demographics will require industry to remain focused on recruiting new workers to replace an aging workforce. Retirements (including mortality) are expected to draw an estimated 9,100 workers from the province's construction industry over the next 10 years – 17 percent of the current labour force.

A key strength for Saskatchewan is that it has one of the youngest populations in Canada, reflecting in-migration of younger workers and a high natural rate of population growth (births less deaths). Historically, the number of citizens leaving the province has outweighed the number of those coming into the province, a trend that reversed in the mid 2000s due to the resource boom and strong economic growth. The decline in commodity and oil and gas prices meant a slowdown for the province's economy over the last few years and migration into the province slowed from the peak of 2012 to 2015. Across the scenario period, migration is expected to slow, but remain an important component of population growth (see Figure 4).

Given strong migration patterns over the past decade and a younger population, Saskatchewan's portion of the working-age population has remained mostly unchanged, while the share of the population 65 years and older has been rising. This trend is expected to persist across the scenario period. Table 6 shows that the share of the population that is potentially retiring from the labour force (65 years and older) will continue to increase, while the share of the population that is potentially entering the labour force (15 to 24 years old) declines marginally.

Based on historical trends, the Saskatchewan construction industry is expected to draw an estimated 10,000 first-time new entrants from the local population, aged 30 and younger, over the next decade to 2026. The number of new entrants is estimated to offset workers expected to retire. Industry, however, will be in competition with other industries facing similar age demographics and should increase initiatives to engage underrepresented supply sources, including Indigenous people and women, when targeting new entrants.

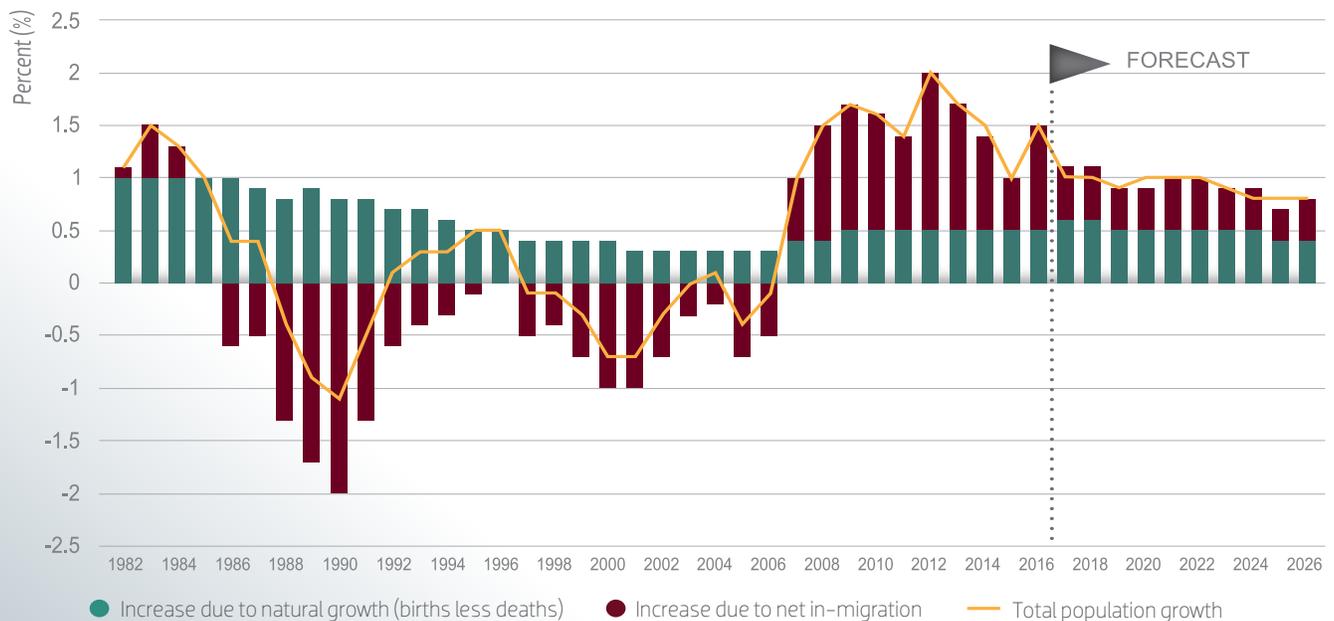
Canada's Indigenous population has the country's highest rate of population growth and a higher propensity to choose construction as their career choice. An estimated 9 percent of all Indigenous people in Canada currently reside in Saskatchewan and account for about 7 percent of the local construction workforce.

Table 5: Residential market rankings, Saskatchewan

TRADES AND OCCUPATIONS – RESIDENTIAL	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Bricklayers	2	3	3	3	3	3	3	3	3	3	3
Carpenters	2	3	3	3	3	3	3	3	2	3	3
Construction managers	2	3	2	3	3	3	3	2	2	2	3
Contractors and supervisors	2	3	3	3	3	3	3	3	3	3	3
Electricians	2	3	3	3	3	3	3	3	2	3	3
Floor covering installers	2	3	3	3	3	3	3	3	3	3	3
Heavy equipment operators (except crane)	2	3	3	3	3	3	3	3	2	3	3
Home building and renovation managers	2	3	3	3	3	3	3	3	3	3	3
Painters and decorators (except interior decorators)	2	3	3	3	3	3	3	3	3	3	3
Plasterers, drywall installers and finishers and lathers	2	3	3	3	3	3	3	3	2	3	3
Plumbers	1	2	2	3	3	3	3	3	2	2	3
Residential and commercial installers and servicers	2	3	3	3	3	3	3	3	3	3	3
Roofers and shinglers	2	3	3	3	3	3	3	3	3	3	3
Sheet metal workers	1	2	2	3	3	3	3	3	2	2	3
Trades helpers and labourers	2	3	3	3	3	3	3	3	2	2	3
Truck drivers	2	3	3	3	3	3	3	3	2	3	3

Source: BuildForce Canada

Figure 4: Sources of population growth (%), Saskatchewan



Source: Statistics Canada, BuildForce Canada (2016–2026)

Table 6: Population age distribution (%), Saskatchewan

AGES	2016	2026
0–14	19.2	19.8
15–24	12.9	11.8
25–54	40.3	39.6
55–64	12.8	11.1
65+	14.8	17.7

Source: Statistics Canada, BuildForce Canada

Across the scenario period, Saskatchewan’s female population is expected to grow faster than their male counterparts. The province’s construction workforce is made up of approximately 9 percent women, of which about 37 percent work directly on construction projects, while the remaining 63 percent work primarily in support or office-related occupations in the construction industry. This translates into women representing 4 percent of the province’s direct construction workforce.

CONCLUSIONS AND IMPLICATIONS

Saskatchewan is currently experiencing a pause following an extraordinary resource expansion that crested earlier than in other provinces. The construction industry is grappling with a residential sector regaining its footing following consecutive years of declines, while the wind-down of major projects releases workers just as workers from Alberta and other provinces are returning. This situation is temporary and provides industry and the construction workforce opportunities to re-calibrate to meet the anticipated project demands in the near future.

As new proposed projects come on stream, anticipated demands may stretch available labour supply after 2019. Meeting demands will likely be made more difficult by the need to plan for an aging workforce and replacing workers expected to retire. Maintaining efforts to attract new entrants during periods of low growth poses challenges, but failing to do so could potentially result in a loss of training capacity. Maintaining a longer-term view is key to meeting anticipated demands of the future.

The industry scenario-based approach developed by BuildForce Canada to assess future labour market conditions provides a powerful planning tool for industry, government and other stakeholders to better track labour market conditions and identify potential pressure points. The assumed timing of proposed major projects in the 2017–2026 outlook underpins the market conditions anticipated. Any changes in the global demands and projected long-term commodity prices may impact resource development project schedules and present risks to anticipated market conditions.

10-YEAR AVERAGE

0.9%



POPULATION GROWTH

16,200



BIRTHS

10,200



DEATHS

5,200



NET MIGRATION

BY 2026

41



AVERAGE AGE OF CONSTRUCTION WORKFORCE

16.9%



PERCENT OF CURRENT LABOUR FORCE LOST TO RETIREMENT

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