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REPORT



# MEXICO'S FARM LABOR MARKET

## DECEMBER 2023



JORNALEROS EN  
LA AGRICULTURA  
DE EXPORTACIÓN



EVALUACIÓN Y PROYECTOS



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México





## Farmworkers in Mexico's Export Agriculture

Report 2  
**Mexico's Farm Labor Market**  
**December 2023**

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Report 2

# Mexico's Farm Labor Market

## December 2023

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This report offers an analysis of the employment situation of the country's agricultural workers for the period December 2022 to December 2023, based on official employment activity data, including the number of workers registered with the Mexican Social Security Institute (Instituto Mexicano del Seguro Social, IMSS) and their wages, as well as quarterly statistics for employment and occupation from the National Institute of Statistics and Geography (Instituto Nacional de Estadística y Geografía, INEGI).

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We are grateful for comments from Elisa Alejandra Martínez Rubio, José Daniel Rodríguez Morales, Sarahí Lay Trigo, and Michelle Judd de la Luz.

The findings, conclusions and recommendations presented in this report are those of the author(s) alone, and do not necessarily reflect the opinions of the institutions or the foundation.

2024



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MEXICO'S FARM LABOR  
MARKET  
DECEMBER 2023

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## EXECUTIVE SUMMARY

Mexican export agriculture can be considered a history of success, and of reduction in extreme poverty for its workers. However, in 2023 it registered much less than its historic growth. Given the fluctuations registered from 2020 to 2023, the forecast is no longer for constant years of growth, as in 2000-2019. A period of stability or slow growth seems to be on the way.

From 2000 to 2019, the number of formal jobs in agriculture had increased at rates in excess of 7% annually. In 2023, it declined or stagnated, depending on the month used as a reference. Is this decline a reflection solely of the slower growth of production? It is not. Formal employment declined more than production. Rather, it seems to indicate a slight but general informalization of the export sector. This is a negative development, especially since agriculture had exhibited the highest rates of formalization of employment of any economic sector in Mexico.

This small but observable informalization of the sector also threatens the welfare of workers throughout the sector. If the producers that offer informal jobs make greater profits, as appears to be the case, it will be difficult to maintain a growing formal sector. The playing field becomes uneven. This report briefly explores some possible causes of this informalization. It is essential to improve, focus, and broaden labor oversight in order to reverse this trend.

In contrast to the rate of growth of formal employment, measured here through registration with the Instituto Mexicano del Seguro Social (IMSS), real registered wages in formal agriculture continued their rise in 2023, although the wage decline observed since July 2023 may foreshadow a deceleration in wages as well. Agriculture was the sector with the fastest wage growth in 2023. Nevertheless, given the repeated, constant increases in the minimum wage, by December 2023, average formal agricultural wages in the states with fewer exports were already below the 2024 minimum wage. General (informal and formal) wages in agriculture, in spite of their relatively rapid improvement, were far below the minimum wage threshold, due to the rapid increases in the legal minimum. The formal wages of the major exporters continue to exceed the minimum wage in spite of its rapid increase. It will be necessary to confirm these findings with 2024 wage data.

In order to understand how informalization was occurring, our researchers carried out field work in the states of Guanajuato, Michoacán, and Jalisco. They found an important number of small and medium export farms, operating openly, whose owners did not pay for IMSS and had convinced their workers that IMSS did not work. They also obtained indirect information about new farms, far from possible inspectors, that



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informally employed children and adults. Finally, they found medium-sized producers who generally offered formal employment, but who hired teams of migrant workers for the harvest through contractors who did not pay for IMSS. We cannot say whether these are the only ways in which the sector is being informalized, but they are significant.

The labor shortage in export agriculture has, paradoxically, fueled informal recruitment. Producers need work crews in time for certain tasks. Informal recruiters might be ethical and necessary for recruitment. But there are many who lie and are abusive, offering better wages and living and working conditions than actually exist. The report includes detailed findings; however, these cannot be quantified.

We also investigated ethical recruitment for the H-2A program in 2023. We found workers who had been victims of fraudulent recruiters. Although legitimate recruiters do not defraud workers, we believe there is an urgent need for an accreditation process for legitimate recruiters. We found that workers recruited for the 2022 program through legitimate recruiters did not pay illegal recruitment fees.

For the first time, we quantified the number of children working in Mexican agriculture. This number, after dropping through 2015-16, slowly increased through the fourth quarter of 2023.

Finally, the report offers data on IMSS registrations and wages for the municipalities with the greatest number of agricultural exports. This report, unlike Report 1, includes the municipality of Hermosillo, Sonora, increasing to 25 the number of municipalities on the Special List first published in that report, and including information from six states: Jalisco, Michoacán, Guanajuato, Sinaloa, Baja California, and Sonora. These data show that many consolidated export municipalities ended 2023 with fewer formal workers than 12 months previously.



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## 2023: AN ASSESSMENT OF THE FARM LABOR MARKET

This report provides a general evaluation of changes in 2023 in basic employment conditions (recruitment, general working conditions, income, and social security) for Mexican agriculture in general and export agriculture in particular. It is based on an original analysis of official figures, and on wide-ranging field work in three export states.

How Much Did Mexican Export Agriculture Grow?

*How Much Did Mexican Export Agriculture Grow?*

It is necessary to describe the context in which agriculture employment grows or not, and the proportion which is formal, in order to determine whether employment trends show an overall improvement or decline in the sector as a whole. The growth of employment depends on economic growth. From 1989 to 2019, Mexican agricultural exports to the United States grew in volume by 800%, and in value by 1000% (Zahniser, 2020).<sup>1</sup> At the same time, agricultural worker registrations with IMSS increased approximately 7% annually: agriculture was the fastest-growing sector in Mexico in terms of worker registrations in social security. The success of Mexican agricultural exports was much less touted than the growth of manufacturing exports in previous decades, but it was notable. However, the growth of agricultural exports is no longer what it was. These exports can be estimated using different sources and concepts. Our team extracted data for manually cultivated fruit, vegetable, and grain exports from the total for the agricultural sector, and found a growth in dollars in 2023 of 4.2%. The annual growth of the agricultural sector including livestock<sup>2</sup> from November 2022 to November 2023 was 1.9%, and based on data from the last available quarter of 2022 and 2023 (September, October, and November), it was only 0.7%. In other words, in the agricultural and livestock sector, the strictly agricultural component was responsible for the greatest part of the growth. This growth has slowed considerably. In the past there were years with 10% growth in exports of fruits and vegetables. In short, 2023 was a year of moderate growth in agricultural exports, and of very low growth for exports in the rest of the sector.

*What Was the Growth in Quality Employment in 2023?*

According to IMSS, the number of jobs with social security in the agricultural sector in Mexico fell 1.6% from December 2022 to December 2023. December is the high season in production and

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1 Zahniser, Steven (2020) Changes in the commodity composition and location of Mexican horticultural production. Presentation delivered at LASA 2020.

2 Including meat from various animals, eggs, flour, and crackers, and alcoholic and non-alcoholic beverages.



employment; if the calculation is made for July, a month during the low season, formal employment grew by 1%. In any case, this growth was minimal.

Employment with social security in Mexican agriculture—quality employment—has stagnated after two decades of remarkable growth, in part because of a slowing of growth in the sector as a whole,<sup>3</sup> but also due to a moderate process of informalization in export jobs. In the field, our team found some practices that favored informality, including in export production. In sum, we found four important factors behind the stagnation or informalization of quality agricultural employment in Mexico, following a period of exemplary growth.

- First, there has been an increase of 134% in the minimum wage from 2018 to 2023. This has been positive for workers, but it has substantially increased the labor costs for agricultural businesses. During the first years of these significant increases, we saw that effectively paid wages increased in real terms even in states where formal agricultural employment is insignificant, such as Chiapas.<sup>4</sup> However, in 2023, the most significant wage dynamic was observed in export states, and the effectively paid wage increase was less.
- Second, employers easily convince their workers to withdraw from IMSS in exchange for an increase in cash. This is a deplorable practice, because workers lose a number of benefits, especially their retirement savings. It also produces unfair competition that favors those who violate labor laws. However, the difficulty of access and the low quality of IMSS health services in rural areas, together with the lack of childcare and other services, encourage workers to accept this deal.
- Third, contracts with the firms that purchase produce for export rarely include audits or other processes of verification of employment conditions. These firms prefer lower prices that increase their profits to assurances of quality employment.
- Finally, and paradoxically, worker shortages promote informality. This shortage, together with the progressive legislation, is responsible for an increase in real wages

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3 If exports grew by 4.2% and employment with social security fell by 1.6%, there is clearly a problem of informalization in export agriculture jobs. Few companies have given us figures for growth in labor productivity, but in these the figures are 2-2.5% annually. In any case there is a gap that indicates an informalization of employment.

4 In other words, the effectively paid wage increases in the export states generated emigration from Mexico's poor Southern states, resulting in a worker shortage there, that was addressed by increasing wages. In addition, these were years with an increase in H-2A contracts, which increased the shortage.



in the sector that is more than 10% annually. However, medium-sized employers have no timely and efficient mechanisms for hiring workers for urgent jobs. Workers native to western and northwestern states, after years of growth in export agriculture, have settled into quality jobs and will not take those that offer only a few days' pay. The option for these employers is to turn to *enganchadores*, or informal recruiters, who move workers from Chiapas, Guerrero, Veracruz, and Oaxaca from one week to another. These *enganchadores* and contractors are essential to the efficient agricultural operations of medium and small employers in export states. But they do not pay for IMSS, and they move entire families. Their workers sometimes arrive in open-back trucks with children and the elderly, and they are housed in unacceptable conditions.

### *Sources of Information for Report 2*

This report is based mainly on two sources: official registers and surveys, and our own field work in three export states in 2023. The former are official figures published by IMSS, based on the register of workers and non-workers<sup>5</sup> affiliated with IMSS, and figures from the National Survey of Occupation and Employment (Encuesta Nacional de Ocupación y Empleo, ENOE), carried out by INEGI, which consists of broad-based probabilistic surveys of Mexican households. The field work was carried out by Elisa Martínez, Daniel Rodríguez, and Michelle Judd in Michoacán, Guanajuato, and Jalisco.

Social security is generally the most expensive benefit paid for by Mexican employers. The percentage of the wage varies, but it is rarely less than 20%, and payment for the National Institute of the Workers' Housing Fund (Instituto Nacional del Fondo de la Vivienda para los Trabajadores, INFONAVIT) must also be added, generally 5% of the comprehensive wage. This report uses payment of social security as an indicator of the general quality of employment.

The other indicator of employment quality is wages. This report uses two sources. The first, which describes only the wages of formal workers, is the contribution salary, the wage used as a basis for calculating the employer's contribution to social security. Because of the form in which the data are available, this report combines the reported wage of direct agricultural workers with those of office, transportation, and management workers in agricultural companies. The majority of the workers included are farm workers, but the inclusion of these more highly paid workers increases the average contribution salary. Employers are also not required to include the entire wage in the contribution salary: various components of the total wage can be excluded, including productivity and other bonuses. Employers exclude some items, resulting in a reduction

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<sup>5</sup> Students and persons not in employment may register with IMSS to access health care. These persons, however, are not included in our analysis.



of the contribution salary. One bias increases the reported wage (because of the inclusion of office and other workers), but another reduces it. The result is that the data reported here are very close to what is reported for the households of formal workers in the second source of wage data: the ENOE. While the information from IMSS is only for formal workers, ENOE includes all workers, formal and informal. Only 15-25% of agricultural wage workers have jobs with social security.

This analysis is complemented by the findings from field work performed in 2023 in the states of Jalisco, Michoacán, and Guanajuato. Interviews were carried out with public officials, producers, company administrative staff, and workers, who provided us with a wide range of perspectives on the structure, organization, and functioning of the agricultural labor market. These states were selected because they are Mexico's major exporters of fruits and vegetables. Also, according to the U.S. Department of Labor, they are the states that provide a large number of migrant workers under the H-2A program. Although many workers were referred to us by the companies, we also found many in their homes and neighborhoods, independently of their employers, to avoid bias. We have confidentiality agreements with the companies and the workers, so we do not identify them here by name.

### *Recruitment for Agricultural Work in Mexico: Is It Ethical?*

This report addresses recruitment for export production in Mexico and for the U.S. H-2A visa program, which recruits workers, the great majority from Mexico, for 3-9 months of seasonal work in the U.S.

We find that recruitment for work in Mexico, for large companies in Jalisco, Guanajuato, northern Michoacán, and Sinaloa, is primary through posters, local radio stations, announcements, and word of mouth, where workers, sometimes accompanied by relatives and neighbors, go to the company to be hired. The success of this system varies by state. An often-mentioned problem in Guanajuato is that local workers with junior high or high school education also have the option of manufacturing jobs in the state's thriving auto sector.

During field work we have confirmed that there are still informal intermediaries, where the responsibility of the employer is delegated to a recruiter or enganchador. This is true in the Bajío of Guanajuato, where we found that this system not only continues, but is also directly related to the situation of precarity and constant violations of labor and human rights (Escobar-Latapí, López-López, Martínez-Rubio, and Judd-de la Luz, 2023).<sup>6</sup> The formalization of agricultural labor has allowed these intermediaries to limit themselves to the search for and selection of workers. In these cases, there is a direct payment from the employer to the recruiter for advertising and

<sup>6</sup> Escobar-Latapí, A., López-López, D. H., Martínez-Rubio, E. A., & Judd-de la Luz, M. (2023). Condiciones de trabajo y vida en la agricultura de exportación del Bajío guanajuatense, 2020-2022. JORNAMEX.



selecting personnel. The costs of transportation, formal hiring, and housing are the responsibility of the company.

The paradigmatic example is of a large company that among its personnel hires intermediaries and pays them a fixed amount per worker. The intermediaries do the recruiting, and during the season they work for the company as leaders of the groups they recruit. This allows them to formalize the process of recruitment and have greater control. The workers have a direct employment relationship with the company, which signs contracts, pays wages, and guarantees adequate housing and transportation. This is an example of formalization of employment intermediaries.

However, the practice of external intermediaries continues, whereby the recruiter is paid to recruit a certain number of workers. This form of recruitment was described to us by an administrative worker for a large production and marketing company, who told us that their company used external intermediaries to recruit workers from Oaxaca and Chiapas. The recruiter charges the company a certain amount for each worker recruited. When workers arrive, they are hired by the company. Although this hiring is formal and directly with the company, the intermediaries continue older practices of deceiving recruits, such as promising benefits like food baskets (*despensas*) or meals, different housing conditions, or higher wages than skilled harvesters earn during the high season. They do this in order to “hook” more workers, because they are paid per worker recruited. We found multiple examples of these practices.

When a company has permanent staff with good relationships in their communities of origin who are able to fill buses with friends, relatives, and neighbors, the recruiters’ methods define whether the recruitment is ethical or not. The staff is permanent, it receives a fixed payment to go to its communities, recruit workers, return with them, and oversee the field or squad in which they work. The workers may or may not receive an advance, but the expense of transportation is borne by the company, and it is not withheld from their pay. When they arrive, the workers are hired by the company; there is no intermediary or subcontractor. The variations in this method, give recruiters more responsibility: their role changes, with increased incentives to lie, charge workers for their jobs, and recruit child laborers. This happens when recruiters, although they are employees of the company, are paid by the person, when they are given responsibility for arranging transportation, or when they are able to influence the payment of the workers.

Finally, recruiters can be independent and charge the company for delivery of a certain product at a certain time, quality, and quantity. At this point they are no longer recruiters, *enganchadores*, or *coyotes*, but contractors. This type of contractor is generally the most abusive. The recruiters benefit from any reduction in costs. The reform to the Federal Labor Law of 2021 defines all harvest work as essential labor for agricultural companies, and it defines the owner of the produce as the employer—be it the producer, the packer, or the exporter. A November 2022

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agreement with the Secretariat of Labor<sup>7</sup> prohibits recruiters from being considered employers and requires them to be registered with the REPSE, but only in charge of recruitment, transportation, and training, not of workers' labor, which is considered part of the principal activity of the agricultural company. Although this agreement prohibits recruiters from being the workers' employers, they sometimes are, and the arrangement is highly functional for companies, especially medium-sized ones.

Because the 2021 reform and the 2022 agreement define the owner of the produce as the employer, it is common, especially in the case of vegetables grown in Guanajuato, for the owners of produce to remain anonymous. They are shielded by contractors, who know who they are but depend on them for future work, and so rarely betray them. Although the government's agreement appears to be aimed at avocado growers, it also applies to producers of fresh vegetables in Guanajuato and many others.

#### *H-2A Program: Is Recruitment Ethical?*

In our 2023 field work we intentionally sought, for the first time,<sup>8</sup> workers with experience in the H-2A program. Given the level of income this program offers, the recruitment conditions are highly significant for Mexican agriculture. Mexican growers are seriously worried that highly selective recruitment for farm work in the U.S. is siphoning off Mexico's best and most productive workers, and worsening an existing labor shortage. In the experience of Escobar, in the majority of cases in 2010-13, genuine recruiters (those who were in fact authorized by the U.S. government to recruit workers) charged workers around 600-800 dollars, before the workers left home for the city where they would obtain their visa, for the purpose of "signing them up" at the embassy. This fee was secret and not refundable. The recruiters instructed the workers to declare, both at the embassy and to their employer in the U.S., that they had paid no such fee.

In 2023, we interviewed three types of workers: those with recent experience in this program, those who had been victims of fraud and did not travel, and those who had gone to recruitment meetings for the visa. All of the workers interviewed who had gone to the U.S. to work in the program declared either that they had not paid any "recruitment fee" or that the fee had been refunded to them when they arrived at their workplace.

We interviewed several workers who had unfortunately been defrauded. The fraud had been perpetrated by persons who convinced them that they could sign them up for the program. They charged 10,000 to 20,000 pesos and disappeared. One of them was, and still is, a municipal official who simply charged the fee and then notified the candidates that the visa "could not be

7 [https://dof.gob.mx/nota\\_detalle.php?codigo=5671249&fecha=14/11/2022](https://dof.gob.mx/nota_detalle.php?codigo=5671249&fecha=14/11/2022)

8 For the first time in this project.



obtained.” The visits of these con artists are systematic. The workers who succeeded in being hired used personal and family networks: others with experience in the program recommended them to employers who then requested them by name. But this sometimes happens only after workers have been defrauded one or more times.

Finally, it is worth noting that a meeting that had been widely advertised as providing information and recruitment for work in the U.S. was in fact organized by a large agricultural recruitment agency in Guanajuato. The agency’s true intention was to hire workers for a company in Mexico. However, workers attending the meeting were told that the company had agreements with companies in the U.S., and that in time these would choose good workers for work in that country. We know of large Mexican companies that do offer access to their most efficient workers after a few years. However, it is not right to announce a meeting “for work in the U.S.” when in reality it is for work in Mexico, even if this practice can be understood in light of the worker shortage in the state.

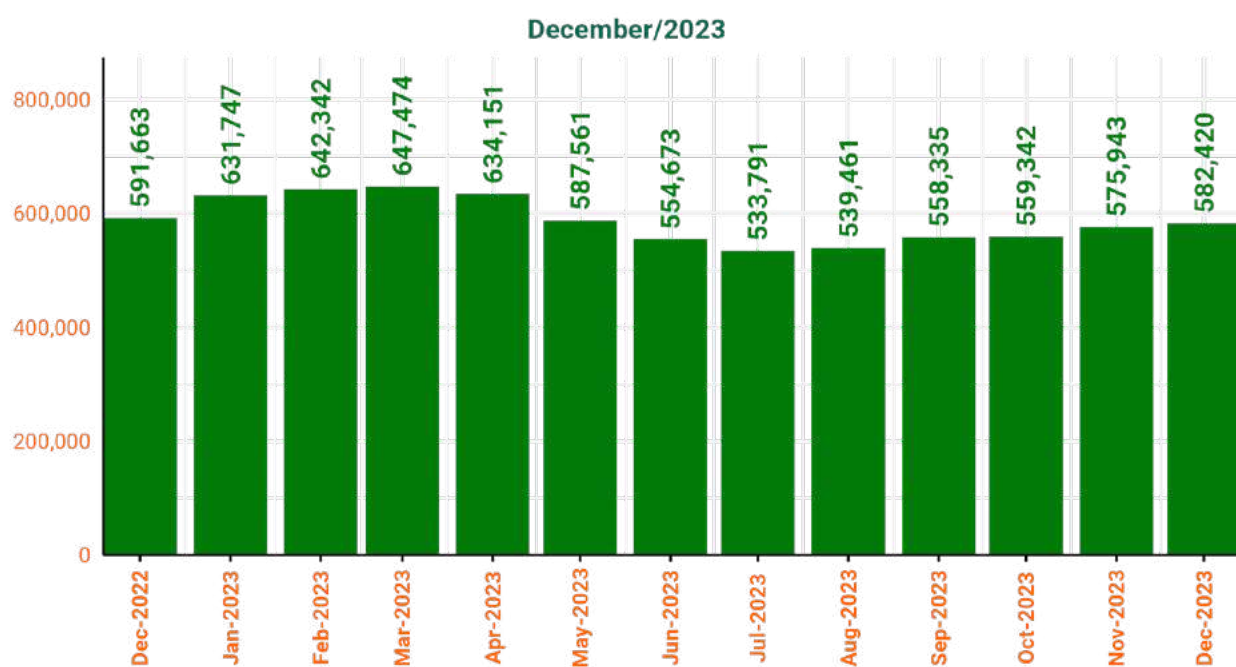
In sum, although we found no charging of non-refundable fees to enter the program in 2023, we did see evidence of various imposters who defrauded potential workers.



## NUMBER OF AGRICULTURAL SECTOR WORKERS REGISTERED WITH IMSS

As of **December 2023**, the Mexican labor market includes a total of 21,999,204 workers registered with IMSS, of whom **582,420 (2.65%)** are workers in the agricultural sector.<sup>9</sup> This figure represents a change of **-1.56%** with respect to the same month in the previous year, and a change of **1.12%** with respect to the previous month, reflecting a different dynamic than that seen in other economic activities, which showed significant layoffs in the month of December.

**Figure 1.** Total Agricultural Sector Workers Registered with IMSS, December 2023.



**Source:** Authors' elaboration, based on IMSS employment statistics

<sup>9</sup> IMSS considers workers in the agricultural sector to be those who work within a company, economic unit, or employment register on level 2 of its classification of economic sectors, that is, in agriculture.



For the month of **December 2023**, of the total number of workers registered in the sector, **68.4%** were men and **31.6%** were women. The number of women in the agricultural sector varies less throughout the agricultural cycle than the number of men. As will be seen below, women's participation is less in the farm labor market as a whole.

**Figure 2.** Agricultural Sector Workers Registered with IMSS, December 2022-December 2023, by sex.

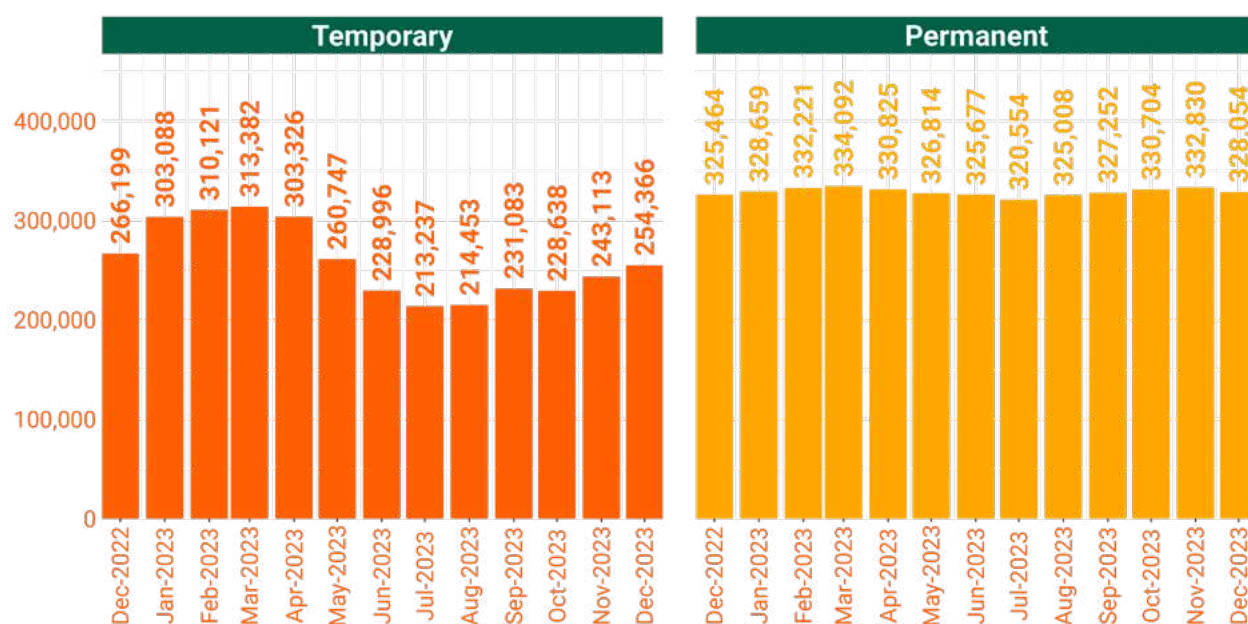


**Source:** Authors' elaboration, based on IMSS employment statistics



In **December 2023**, the number of temporary jobs in the fields rose to **254,366**, while the number of permanent jobs increased to **328,054**. Temporary jobs represented 43.6% of the total number of jobs in the agricultural sector in **December 2023**.

**Figure 3.** Temporary and Permanent Workers in the Agricultural Sector.

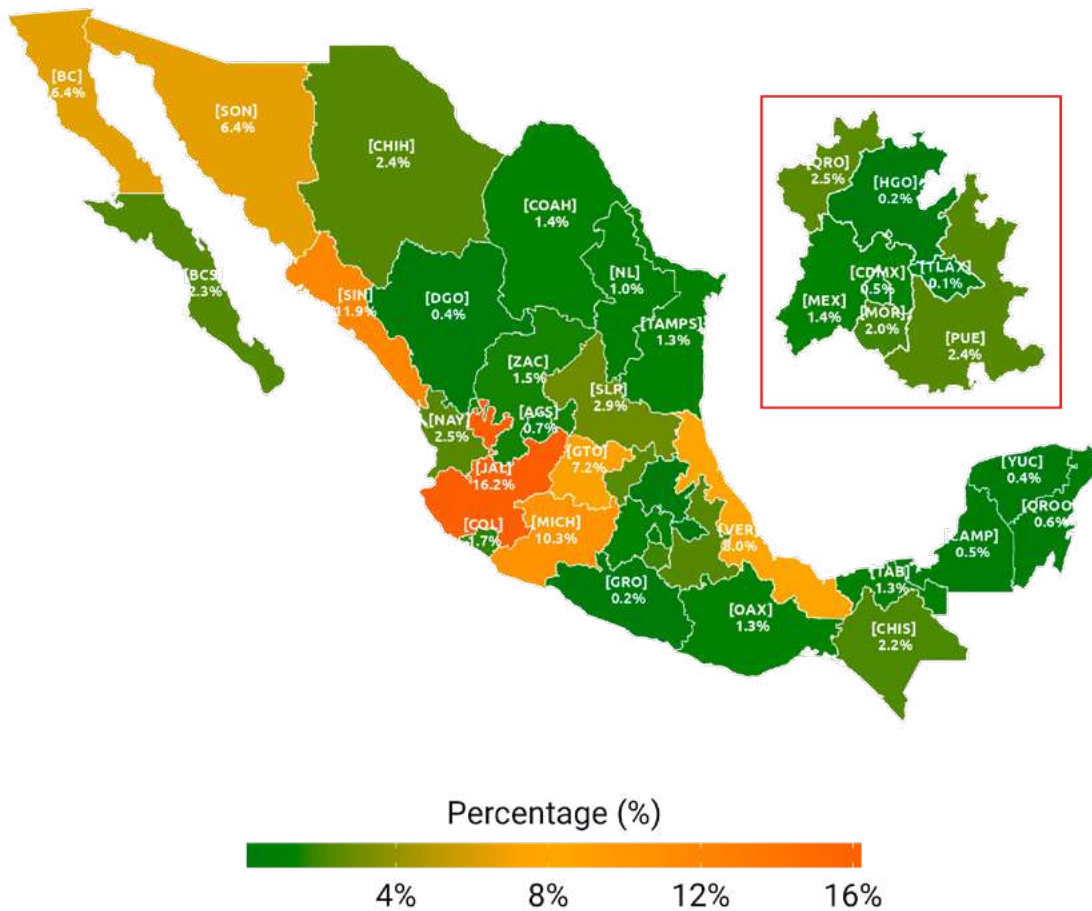


**Source:** Authors' elaboration, based on IMSS employment statistics



The states with the largest numbers of agricultural sector workers registered with IMSS are **Jalisco (16.2%)**, **Sinaloa (11.9%)**, **Michoacán (10.3%)**, **Veracruz (8.0%)**, **Guanajuato (7.2%)**, **Sonora**, and **Baja California (both 6.4%)**.

Figure 4. Agricultural sector workers registered with IMSS, by state.



Source: Authors' elaboration, based on IMSS employment statistics

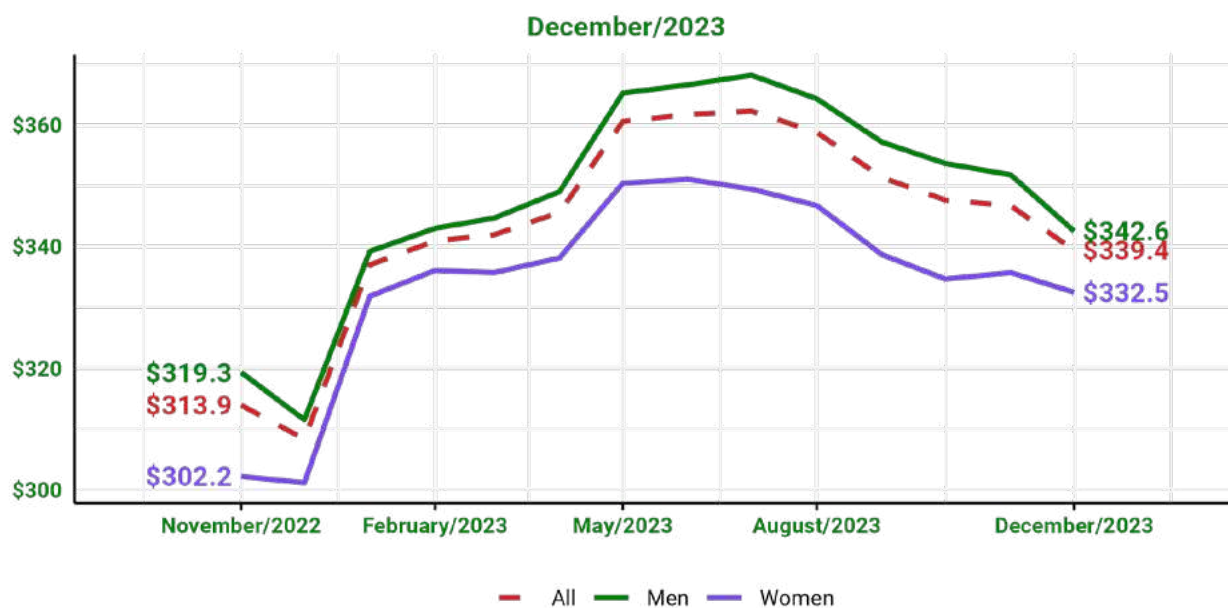


## WAGES REPORTED TO IMSS CONTRIBUTIONS AND INCOME DATA

This section analyzes wages reported to IMSS in the agricultural sector in general. Two points of caution regarding reported wages: First, some employers underreport them. If they report lower wages, they reduce their contributions. And employers are not obliged to report all of the items added to wages. Productivity bonuses, for example, don't have to be reported. Second: although farm workers make up the bulk of the reported wages, the figures also include the wages of office and white collar workers. For this reason, the reported wage is higher than the average farm worker wage. One bias reduces reported wages, while the other raises them.

The average reported wage for jobs in the agricultural sector rose in **December 2023** to **\$339.4** pesos a day on the national level. For men it was **\$342.6** and for women **\$332.5**; for permanent workers it was **\$362.0** and for temporary workers it was **\$317.4**. The annual percentage increase in the average reported wage (10.1%) was much higher than inflation in the same period (4.88%). Real wages have been rising in Mexico in general. Agriculture shows the largest real wage increases, although average agricultural wages are still below other sectors.

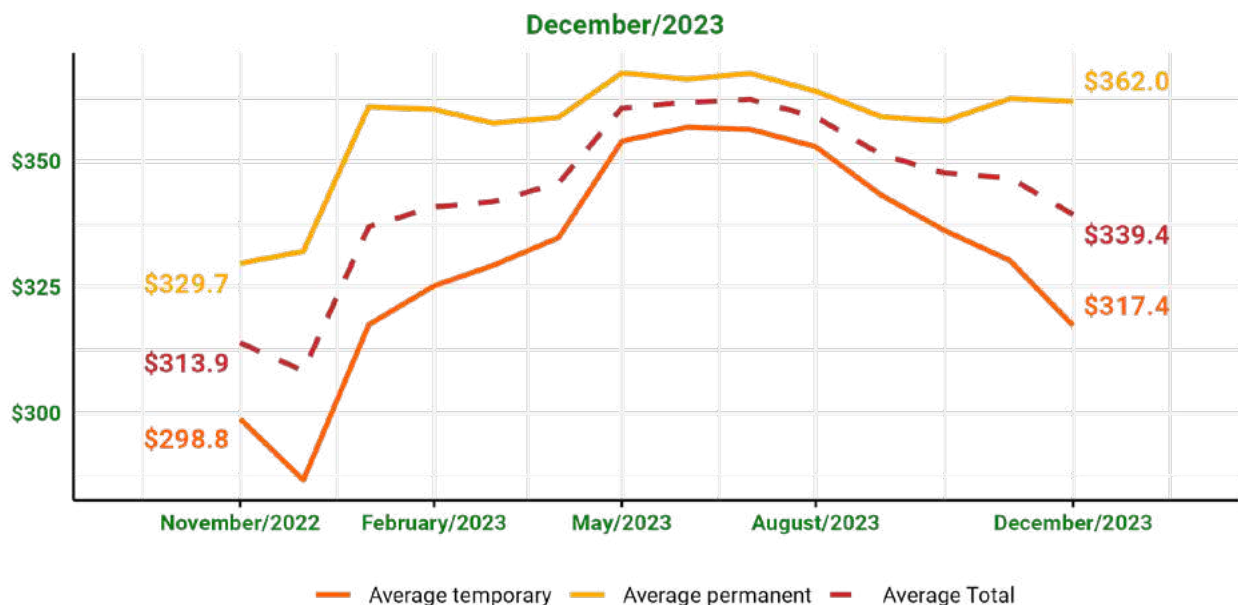
**Figure 5.** Evolution of the Average Contribution Salary in the Agricultural Sector, November 2022-December 2023, by Sex.



Source: Authors' elaboration, based on IMSS employment statistics. December 2023 pesos.



**Figure 6.** Evolution of the Average Contribution Salary in the Agricultural Sector, November 2022-December 2023, for permanent and temporary workers.

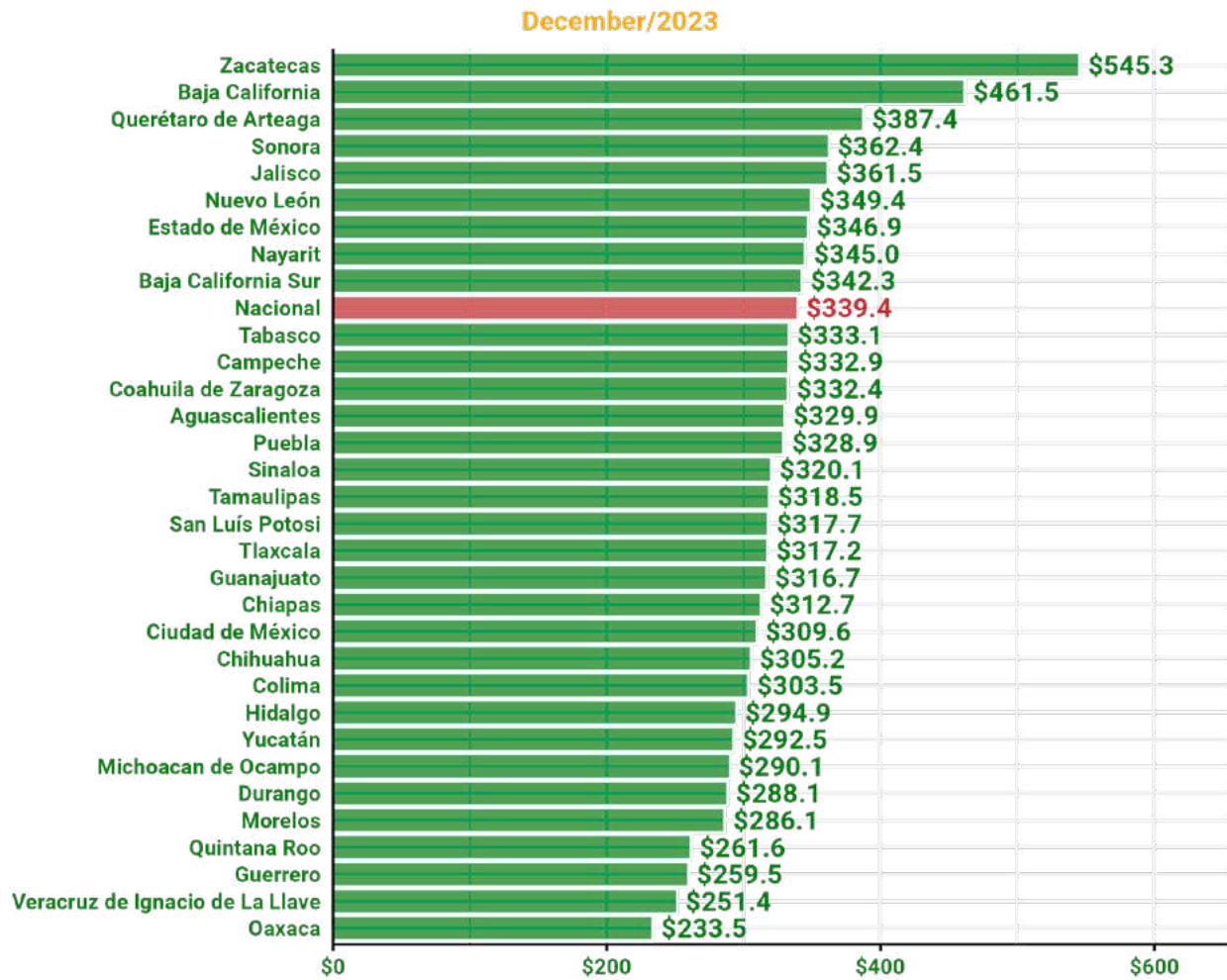


**Source:** Authors' elaboration, based on IMSS employment statistics. December 2023 pesos.

The states with the highest average reported wage in **December 2023** were **Zacatecas (\$545.3)**, **Baja California (\$461.5)**, and **Querétaro (\$387.4)**; those with the lowest were **Oaxaca (\$233.5)**, **Veracruz (\$251.4)**, and **Guerrero (\$259.5)**.





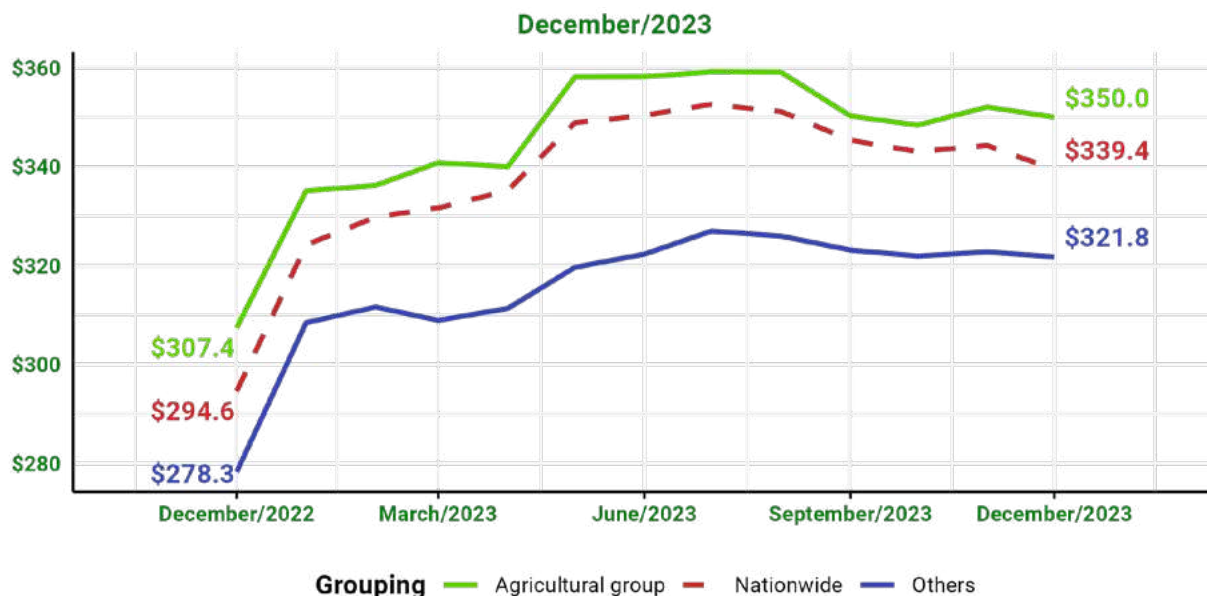
**Figure 7.** Base Wages for IMSS Contributions for Agricultural Sector Workers, by State/Work Status.

**Source:** Authors' elaboration, based on IMSS employment statistics. December 2023 pesos.



Among the leading farm export states (Guanajuato, Michoacán, Jalisco, Sinaloa, and Baja California—what we term the agricultural group), the average reported wage rose to **\$350.0**, as compared with **\$321.8** in the other states.

**Figure 8.** Evolution of the Average Contribution Salary in the Agricultural Sector over the Last Twelve Months, by Group of States.



Source: Authors' elaboration, based on IMSS employment statistics. December 2023 pesos.

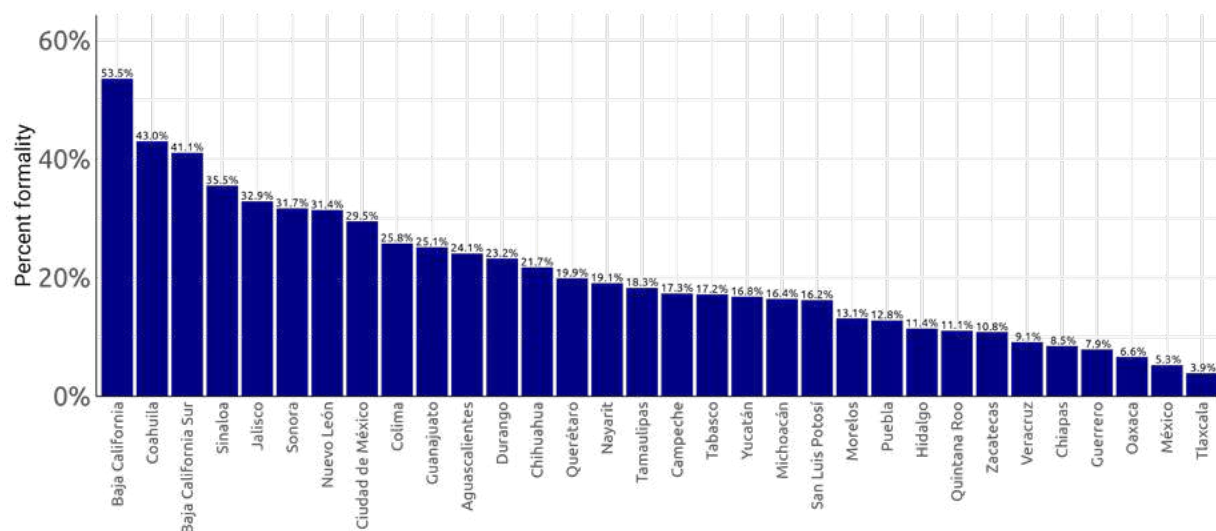


## INCOME AND FORMALITY ACCORDING TO THE NATIONAL SURVEY OF OCCUPATION AND EMPLOYMENT

According to data from the National Survey of Occupation and Employment (Encuesta Nacional de Ocupación y Empleo), in 4Q2023, the agricultural sector employed 5,737,241 people nationally, representing 10% of the country's employed economically active population (EAP)<sup>10</sup> and the third largest economic sector in the NAICS,<sup>11</sup> below only manufacturing and retail trade.

Employment in the sector is mainly male, with men representing 84.8% of the employed EAP and women 15.2%. It is also also a highly informal sector, with 85.7% working in jobs without benefits.

**Figure 9.** Percent Formality in the Agricultural, Livestock, Forestry, Hunting, and Fishing Sector, 4Q2023.



EAP in formal jobs/total EAP

Source: Author's elaboration with Data from the INEGI National Survey on Occupations and Employment (ENOE)

**Source:** Author's elaboration with Data from the INEGI National Survey on Occupations and Employment (ENOE), 4Q2023 pesos.

<sup>10</sup> This includes the population aged 15 and older that is economically active, employed, and receives payment or remuneration.

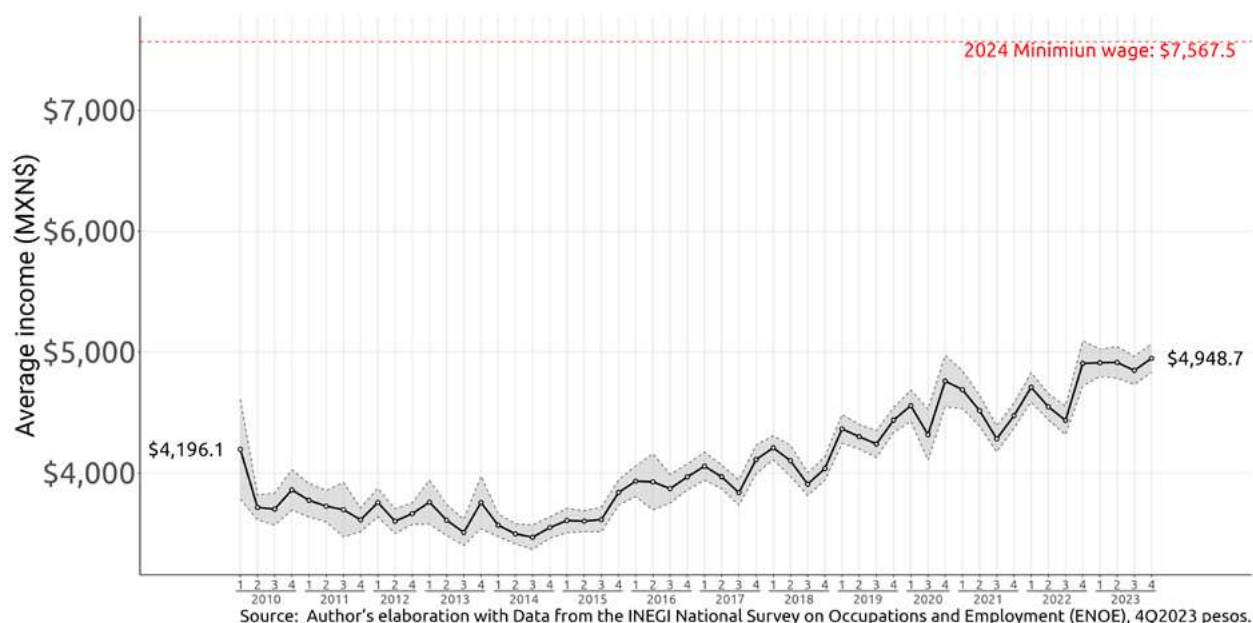
<sup>11</sup> NAICS: North American Industry Classification System.



The states with the highest rates of formality (EAP in formal jobs/total EAP) were Baja California, Coahuila, Baja California Sur, Sinaloa, Jalisco, Sonora, and Nuevo León: states characterized by technologically advanced agriculture, and a large export sector.<sup>12</sup>

The average monthly income of agricultural sector workers was **\$4,948** pesos. Notably, this income was **\$2,619** pesos below the minimum wage in January 2024.<sup>13</sup> This was the average income for the entire sector: the majority of workers in the sector were informal, with low incomes.

**Figure 10.** Average Monthly Income, Agricultural, Livestock, Forestry, Hunting, and Fishing Sector, 4Q2023.



**Source:** Author's elaboration with Data from the INEGI National Survey on Occupations and Employment (ENOE), 4Q2023 pesos.

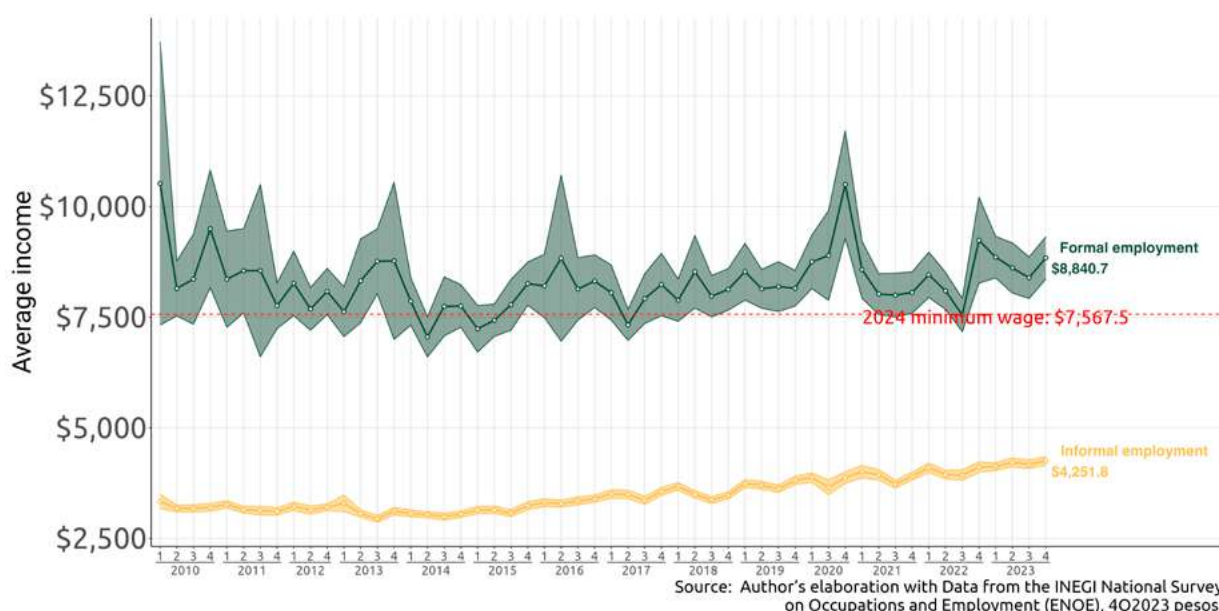
12 The absolute number of formal workers is often lower in ENOE than reported by IMSS. The more reliable figure is IMSS, because it counts workers whose data were correctly entered in their system. ENOE bases its assessment of IMSS registration on the responses of any adult in the household deemed to be informed of the employment characteristics of all employed household members.

13 The minimum wage in 2024 is \$248.93 pesos per day, or \$7567.5 pesos per month (based on an average of 30.4 days per month). See: <https://www.gob.mx/conasami/articulos/incremento-a-los-salarios-minimos-para-2024?idiom=es>.



An analysis of formal versus informal workers using data from the ENOE shows that the average monthly income of a formal worker in the agricultural sector was **\$8,840.7** pesos (4Q2023 pesos), while that of an informal worker was **\$4,251.8** pesos, a difference of **\$4,581** pesos. This enormous gap emphasizes the need for a greater number of economic units carrying out high-value agricultural activities, as these generate greater employment and income opportunities for the country’s workers.

**Figure 11.** Average Income, Formal versus Informal Employment, Agricultural, Livestock, Forestry, Hunting, and Fishing Sector, 4Q2023.

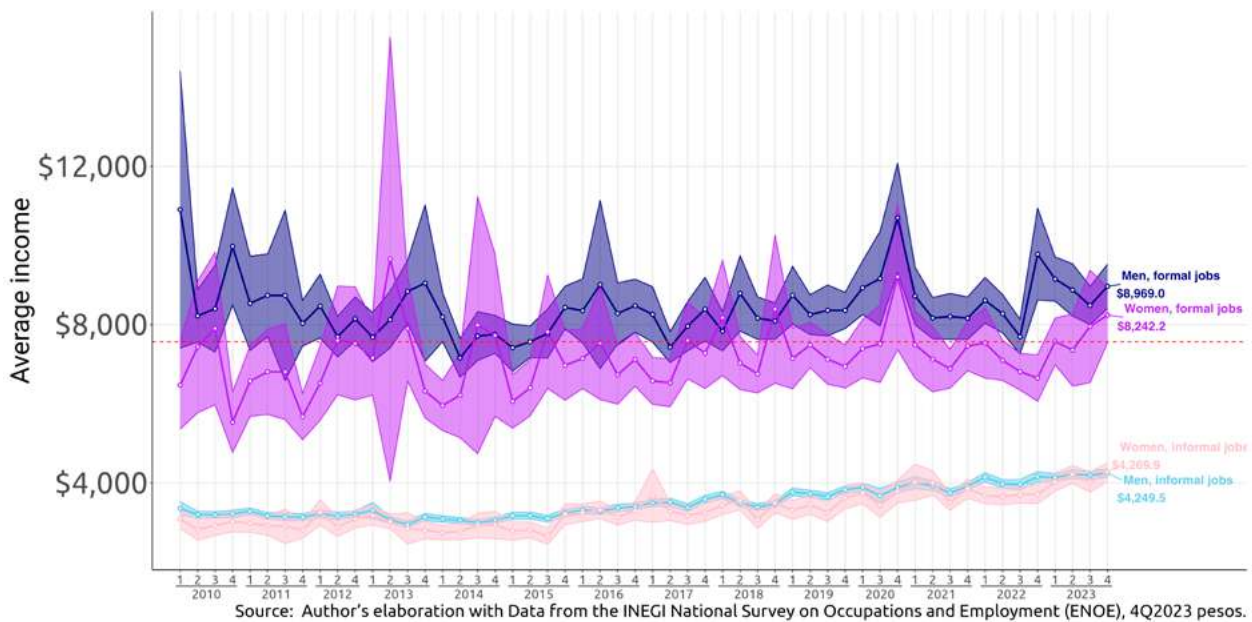


**Source:** Author's elaboration with Data from the INEGI National Survey on Occupations and Employment (ENOE), 4Q2023 pesos.



Wage differences between men and women varied according to whether they had formal or informal employment, although, as seen in the data for wages reported to IMSS, the differences are not very great. Men with a formal job in the agricultural sector earned an average of **\$8,969.0** pesos a month, while women with formal jobs earned **\$8,242.2** pesos. Men with informal jobs earned an average of **\$4,249.5** pesos a month, and women **\$4,269.9** pesos. These differences are not statistically significant.

**Figure 12.** Average Monthly Income by Formality versus Informality and by Sex, Agricultural, Livestock, Forestry, Hunting, and Fishing Sector, 4Q2023.

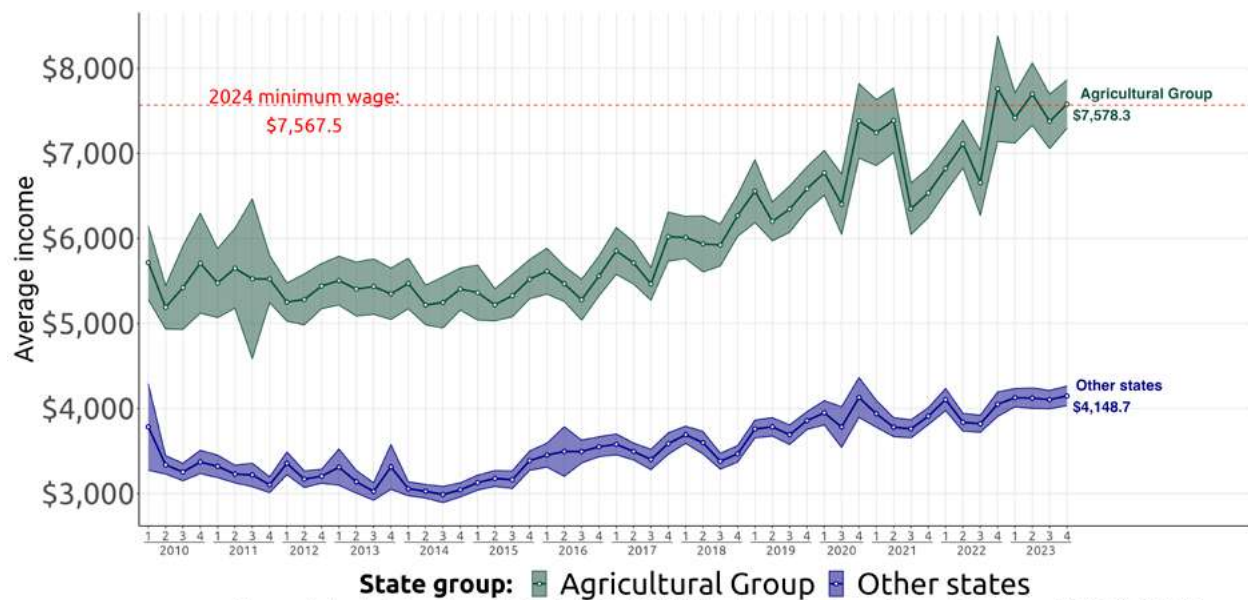


**Source:** Author's elaboration with Data from the INEGI National Survey on Occupations and Employment (ENOE), 4Q2023 pesos.



In the Agricultural Group (Guanajuato, Michoacán, Jalisco, Sinaloa, and Baja California), workers' average monthly income in the agricultural sector was **\$7,230.9** pesos, in comparison to **\$3,597.0** in the rest of the states, a difference of **\$3,633** pesos. Analysis of formal versus informal workers shows that formal workers in the Agricultural Group earned **\$10,298.7** pesos (**\$2,442** pesos more than in the other states), and informal workers earned **\$6,610.5** pesos (**\$2,958** pesos more than in the other states).

**Figure 13.** Average Monthly Income by Group of States, Agricultural, Livestock, Forestry, Hunting, and Fishing Sector, 4Q2023.

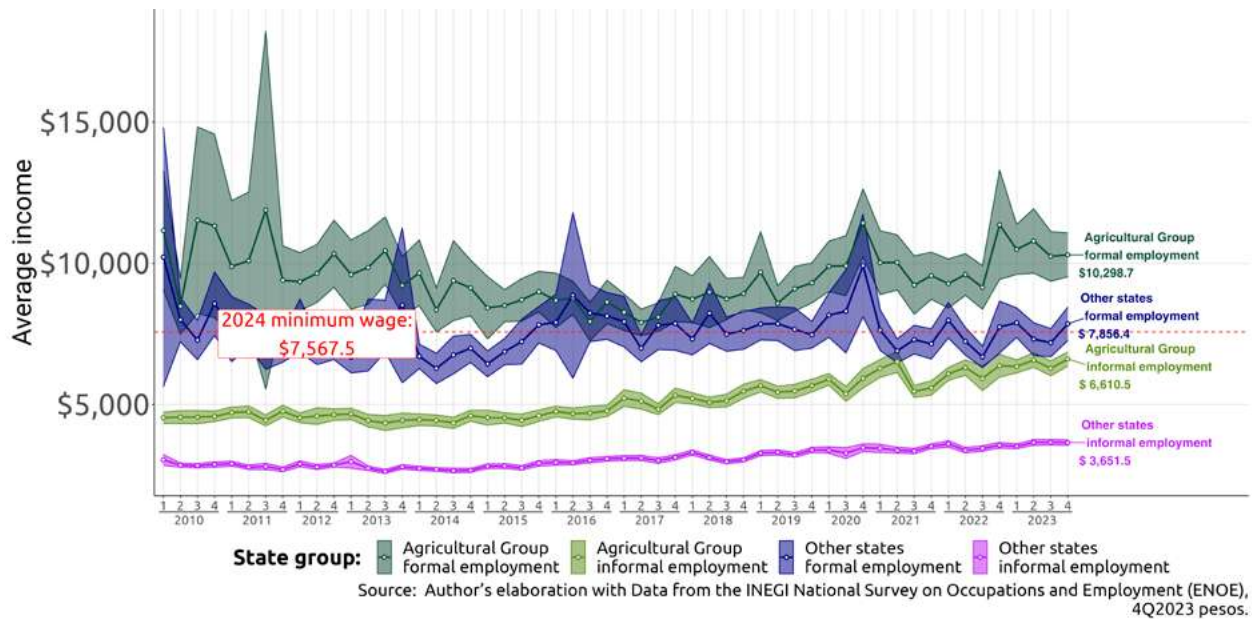


Source: Author's elaboration with Data from the INEGI National Survey on Occupations and Employment (ENOE), 4Q2023 pesos.

**Source:** Author's elaboration with Data from the INEGI National Survey on Occupations and Employment (ENOE), 4Q2023 pesos.



**Figure 14.** Average Monthly Income by Group of States and Formal versus Informal Employment, Agricultural, Livestock, Forestry, Hunting, and Fishing Sector, 4Q2023.



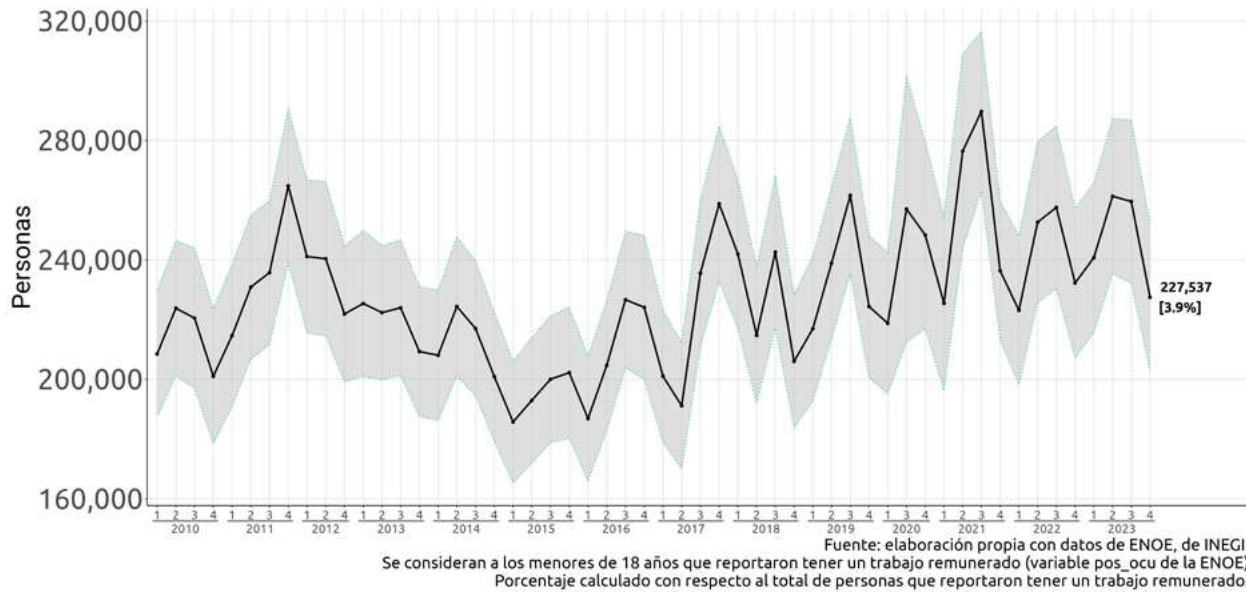
**Source:** Author's elaboration with Data from the INEGI National Survey on Occupations and Employment (ENOE), 4Q2023 pesos.

An additional analytical dimension is the use of child and minor labor in the sector. According to ENOE data, the percentage of persons younger than 18 with paid employment in the agricultural, livestock, forestry, hunting, and fishing sector has fluctuated in the past ten years between **3.3%** and **4.8%**, which represents between **180** and **300 thousand underage workers** throughout the country. By the fourth quarter of 2023, it is estimated that **227.000 minors will be working in the primary sector.**





**Figure 15.** Estimate of Persons Younger than 18 Years Working in the Agricultural, Livestock, Forestry, Hunting, and Fishing Sector, 4Q2023.



**Source:** Author’s elaboration with Data from the INEGI National Survey on Occupations and Employment (ENOE)

Finally, in the context of a reduction in the work week to 40 hours, it should be noted that of the employed EAP in the sector, only **16%** (approximately **919,162** workers) would benefit from being formal employees working more than 40 hours a week.



## MUNICIPALITIES ON THE SPECIAL LIST

The figures below show the results for the municipalities with special monitoring listed below.

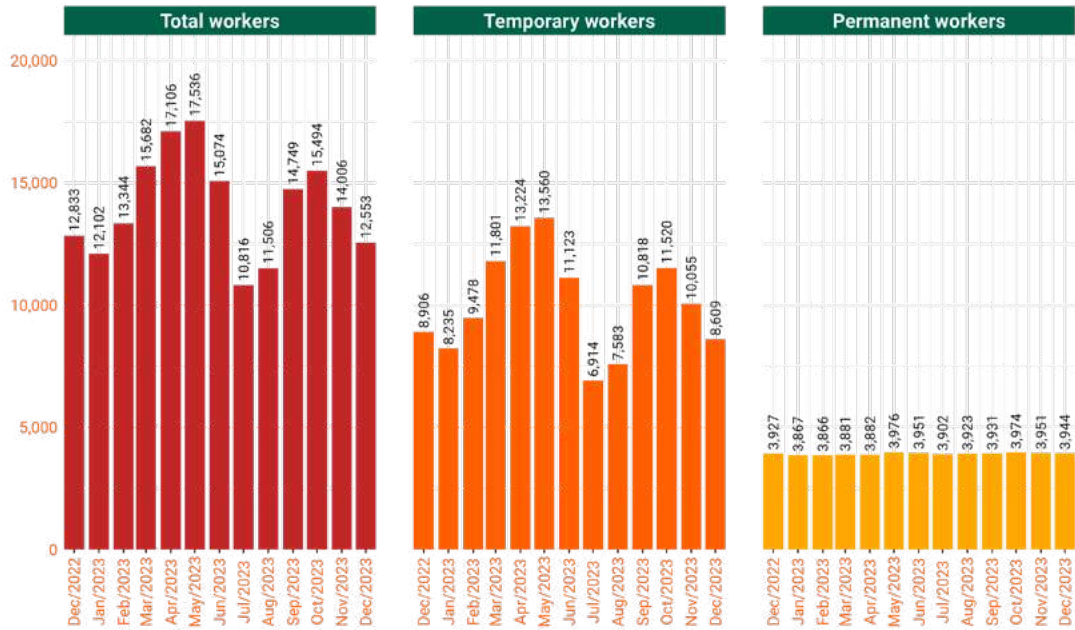
Municipality	State	Main Crops
Hermosillo	Sonora	Vegetables
Mexicali	Baja California	Vegetables, grapes, berries
Ensenada	Baja California	Vegetables, grapes, berries
San Quintín	Baja California	Vegetables, berries
Uruapan	Michoacán de Ocampo	Avocados
Tancítaro	Michoacán de Ocampo	Avocados
Zamora	Michoacán de Ocampo	Berries
Jacona	Michoacán de Ocampo	Berries
Zapotlán el Grande	Jalisco	Berries
Gómez Farías	Jalisco	Berries
Sayula	Jalisco	Berries
Amacueca	Jalisco	Berries
Jocotepec	Jalisco	Berries
Arandas	Jalisco	Tequila
Atotonilco el Alto	Jalisco	Tequila
Tequila	Jalisco	Tequila
Amatitán	Jalisco	Tequila
Culiacán	Sinaloa	Tomatoes and peppers
Navolato	Sinaloa	Tomatoes and peppers
Pénjamo	Guanajuato	Very diverse, vegetables, berries, agave, others
Abasolo	Guanajuato	Very diverse, vegetables, berries, agave, others
Irapuato	Guanajuato	Very diverse, vegetables, berries, agave, others
Romita	Guanajuato	Very diverse, vegetables, berries, agave, others
Valle de Santiago	Guanajuato	Very diverse, vegetables, berries, agave, others
Dolores Hidalgo Cuna de la Independencia	Guanajuato	Very diverse, vegetables, berries, agave, others

Data for these municipalities is shown below.

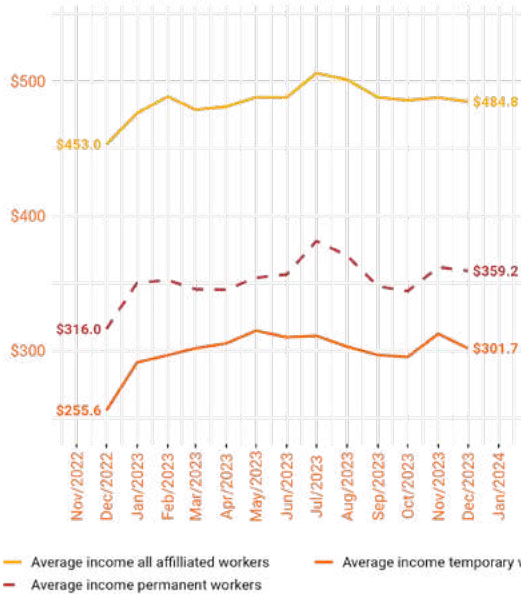


Figure 16. State: Sonora, Municipality: Hermosillo.

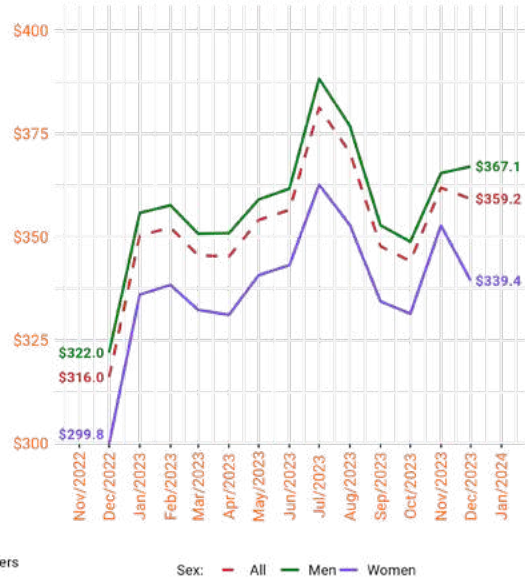
**Total, Permanent, and Temporary Agricultural Sector Workers Registered with IMSS**  
 State: Sonora, Municipio: Hermosillo



**Base Wage for IMSS Contributions for Temporary and Permanent Workers**  
 State: Sonora, Municipio: Hermosillo



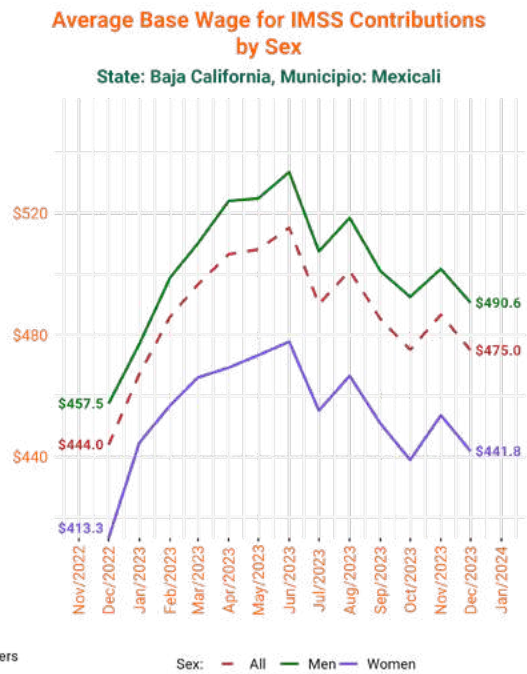
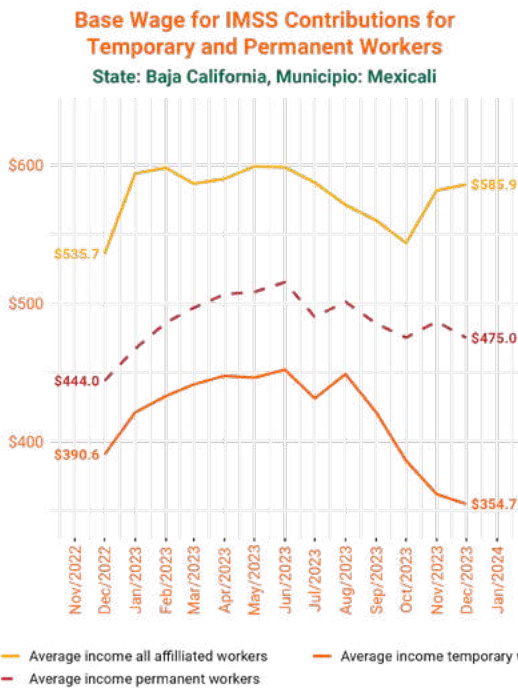
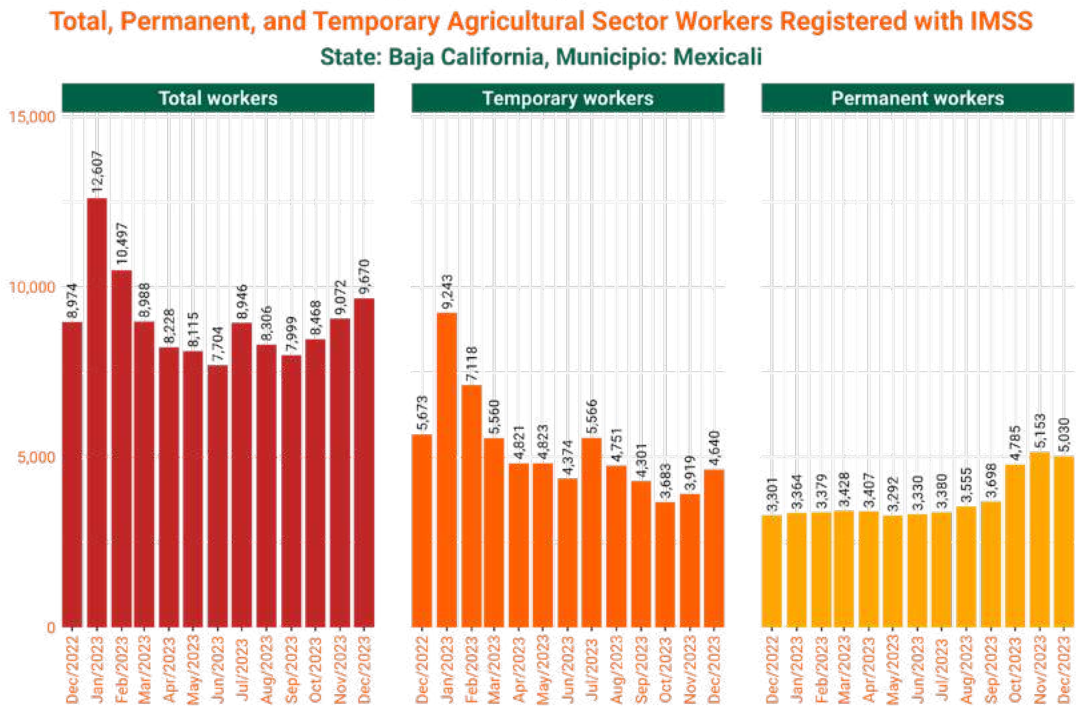
**Average Base Wage for IMSS Contributions by Sex**  
 State: Sonora, Municipio: Hermosillo



Source: Authors' elaboration with labor statistics from IMSS.



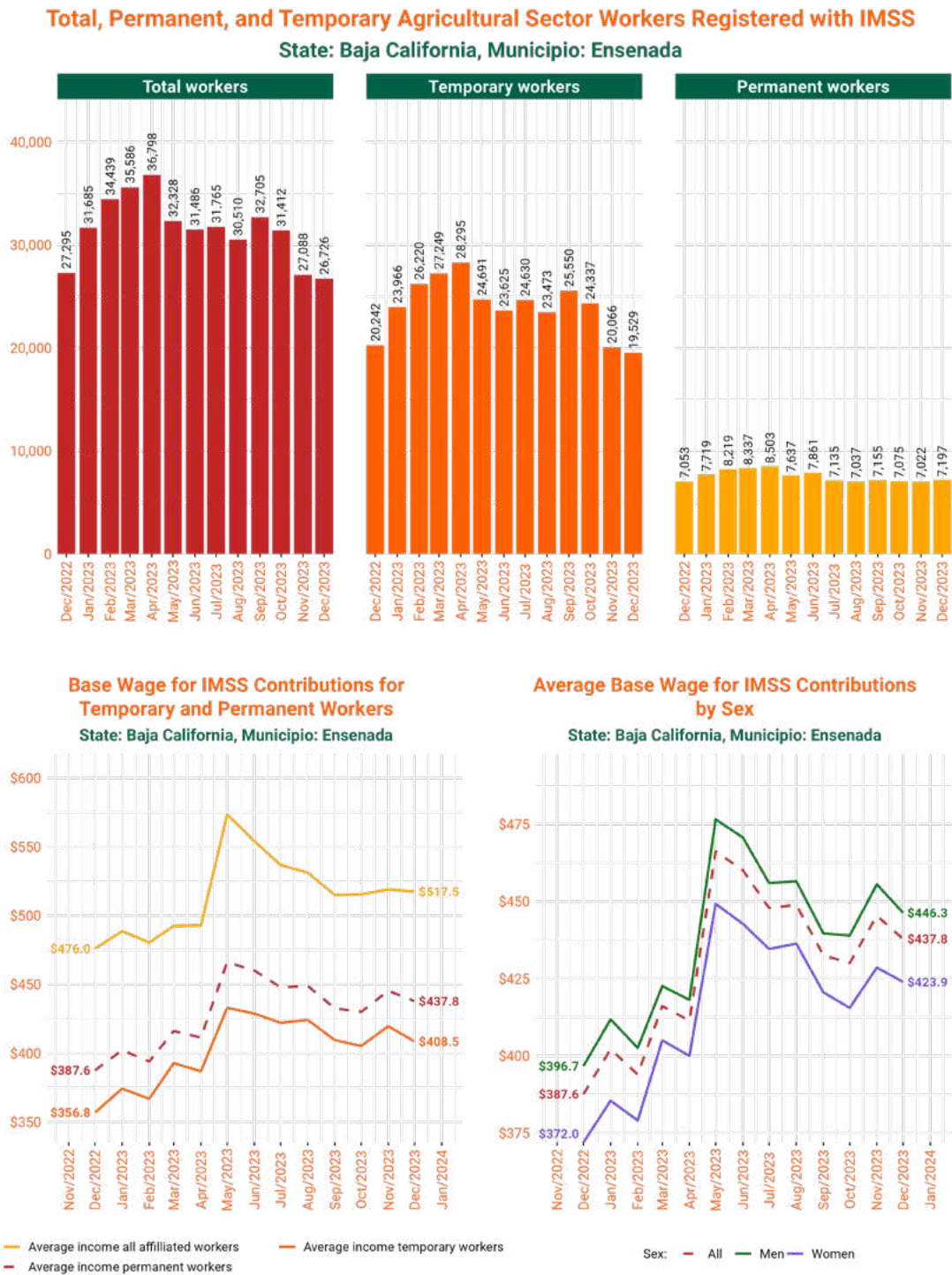
Figure 17. State: Baja California. Municipality: Mexicali.



Source: Authors' elaboration with labor statistics from IMSS.



Figure 18. State: Baja California. Municipality: Ensenada.

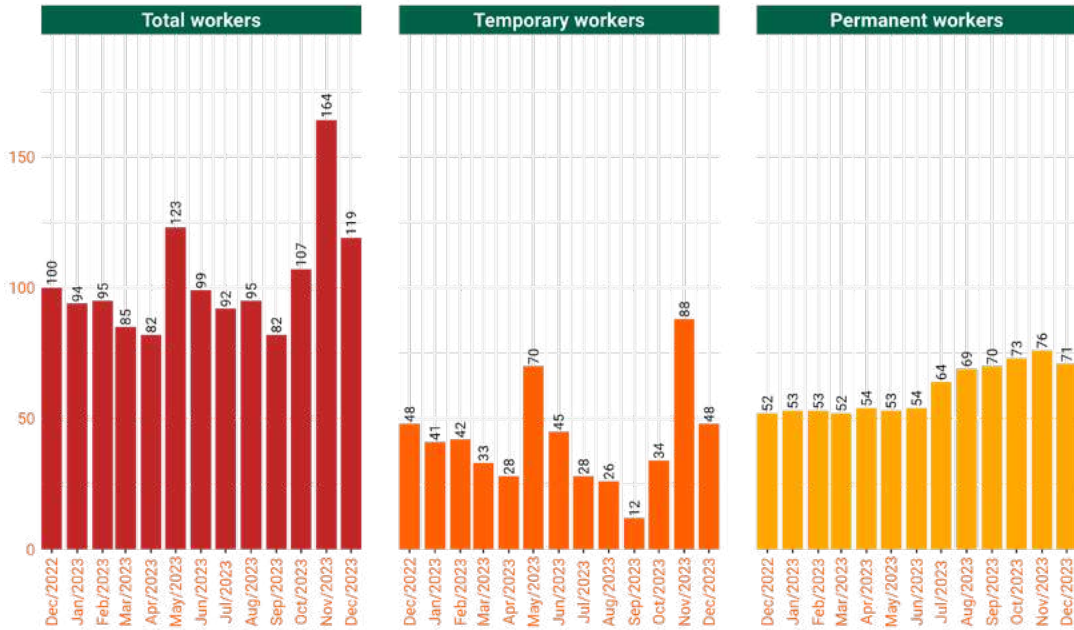


Source: Authors' elaboration with labor statistics from IMSS.

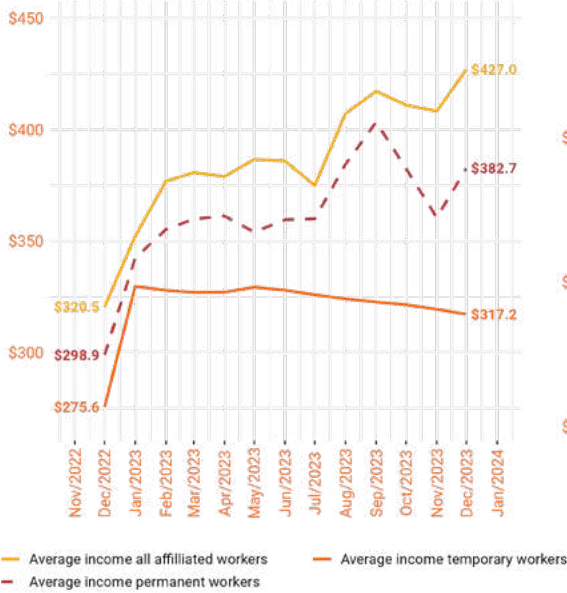


**Figure 19.** State: Baja California. Municipality: San Quintín.

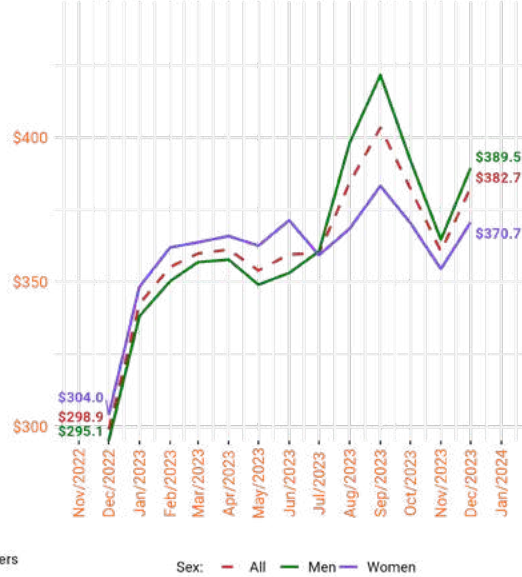
**Total, Permanent, and Temporary Agricultural Sector Workers Registered with IMSS**  
 State: Baja California, Municipio: San Quintín



**Base Wage for IMSS Contributions for Temporary and Permanent Workers**  
 State: Baja California, Municipio: San Quintín



**Average Base Wage for IMSS Contributions by Sex**  
 State: Baja California, Municipio: San Quintín

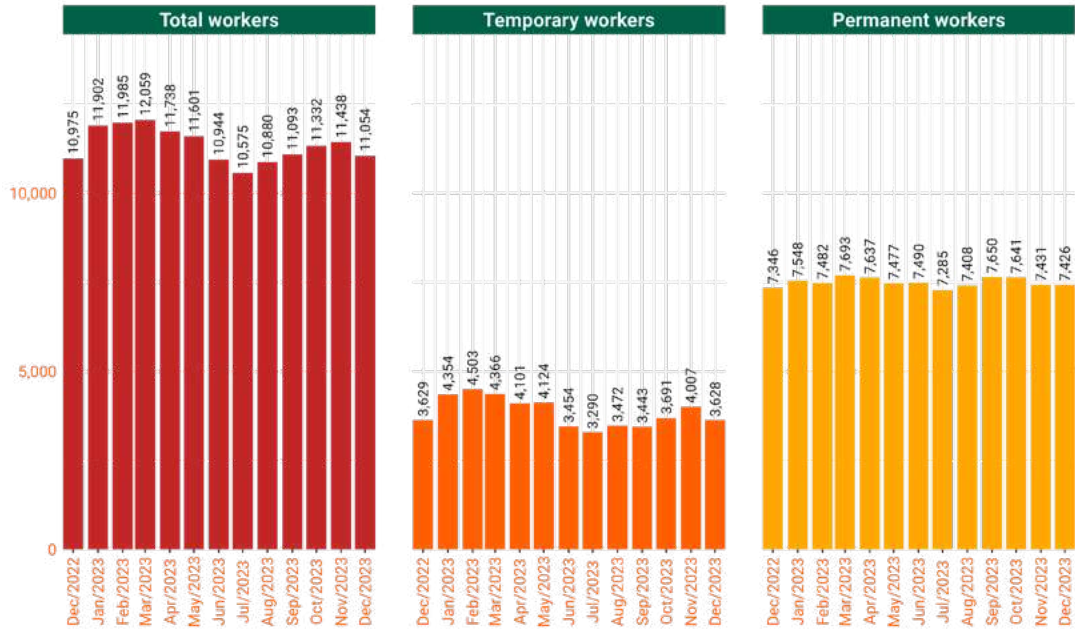


Source: Authors' elaboration with labor statistics from IMSS.

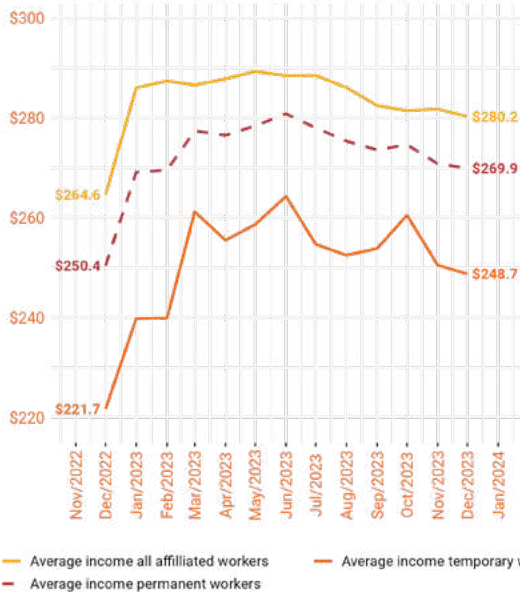


Figure 20. State: Michoacán. Municipality: Uruapan.

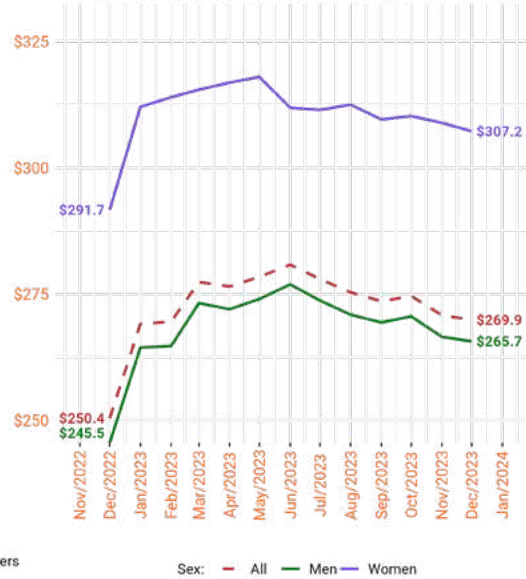
**Total, Permanent, and Temporary Agricultural Sector Workers Registered with IMSS**  
 State: Michoacán de Ocampo, Municipio: Uruapan



**Base Wage for IMSS Contributions for Temporary and Permanent Workers**  
 State: Michoacán de Ocampo, Municipio: Uruapan



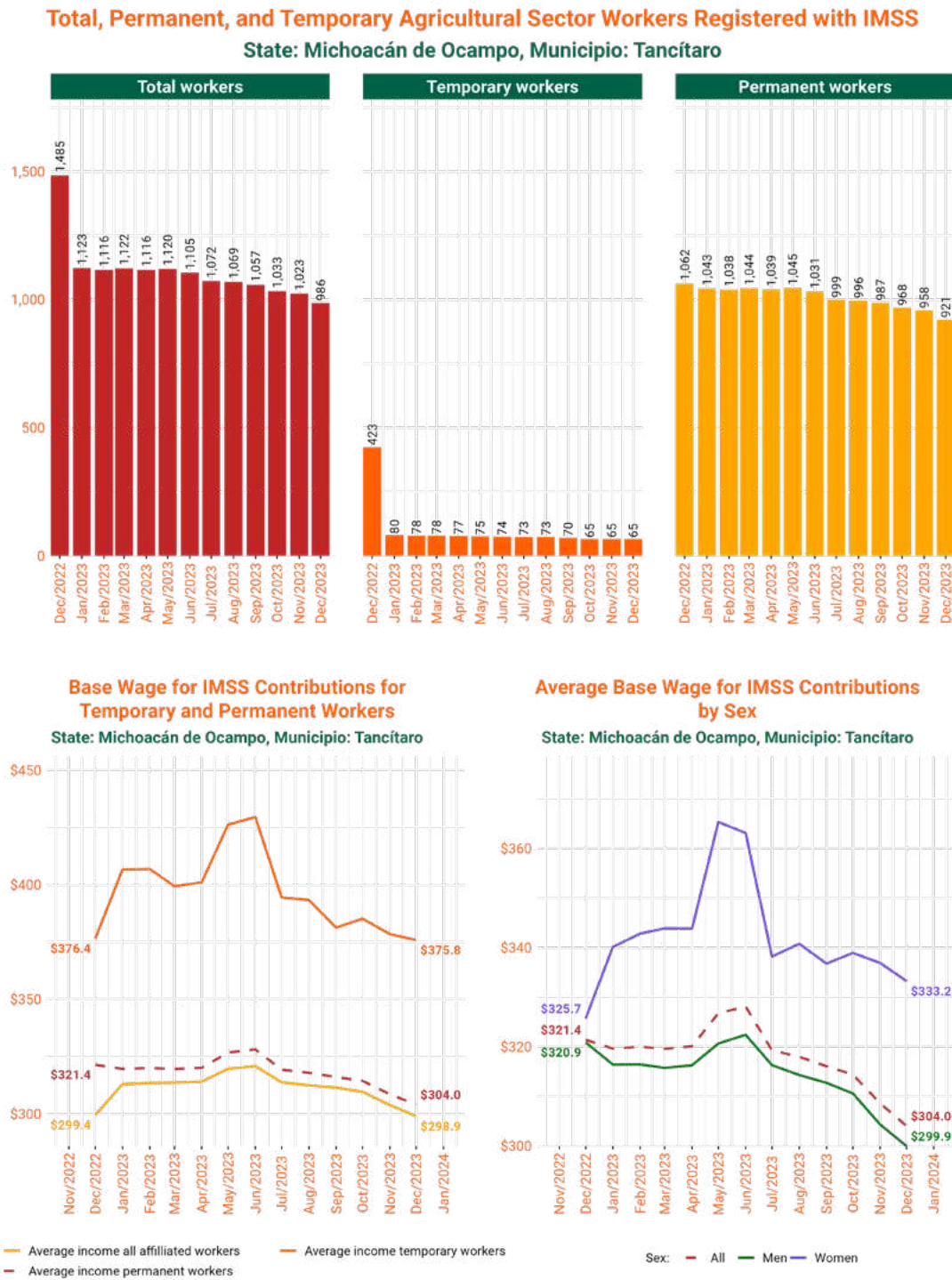
**Average Base Wage for IMSS Contributions by Sex**  
 State: Michoacán de Ocampo, Municipio: Uruapan



Source: Authors' elaboration with labor statistics from IMSS.



Figure 21. State: Michoacán. Municipality: Tancítaro.

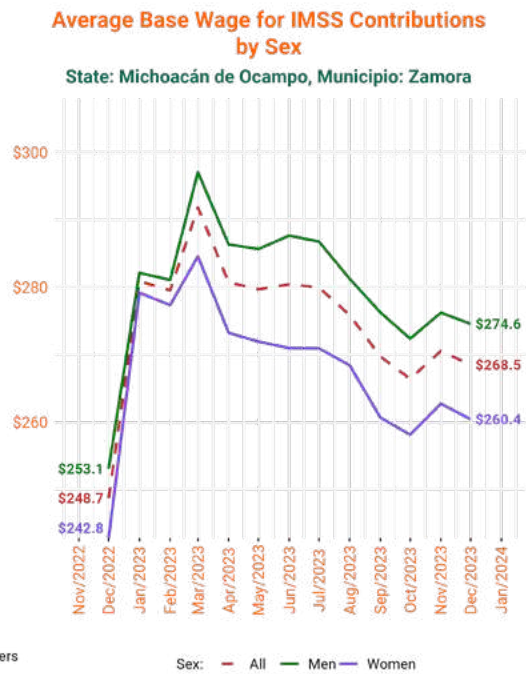
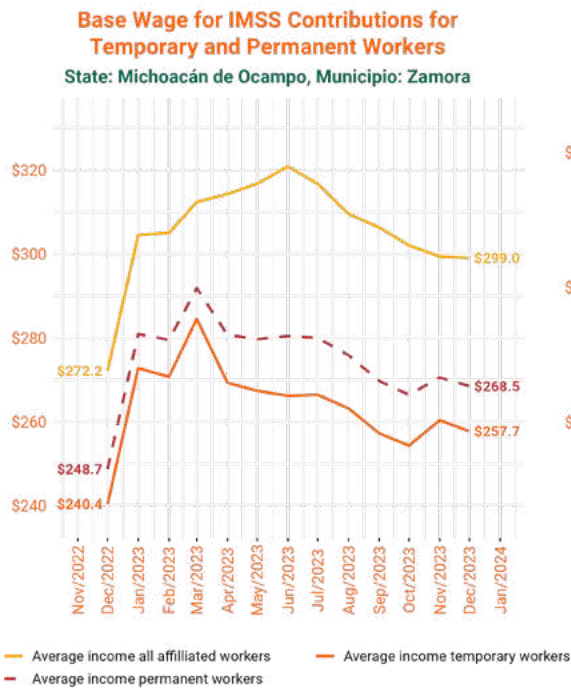
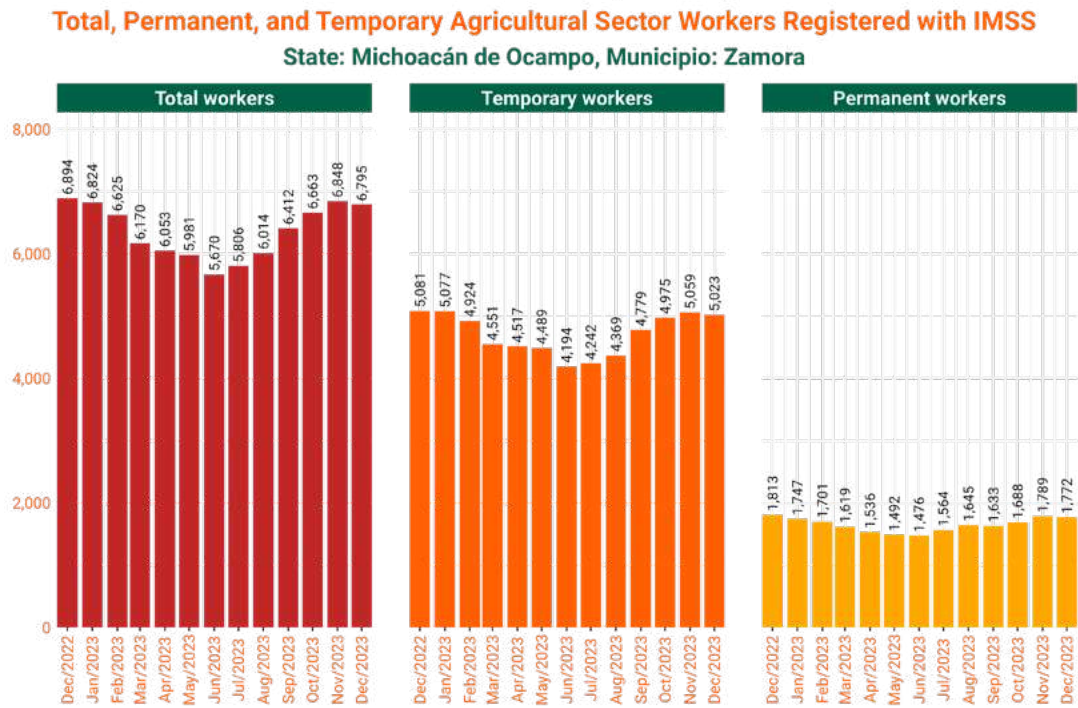


Source: Authors' elaboration with labor statistics from IMSS.





Figure 22. State: Michoacán. Municipality: Zamora.

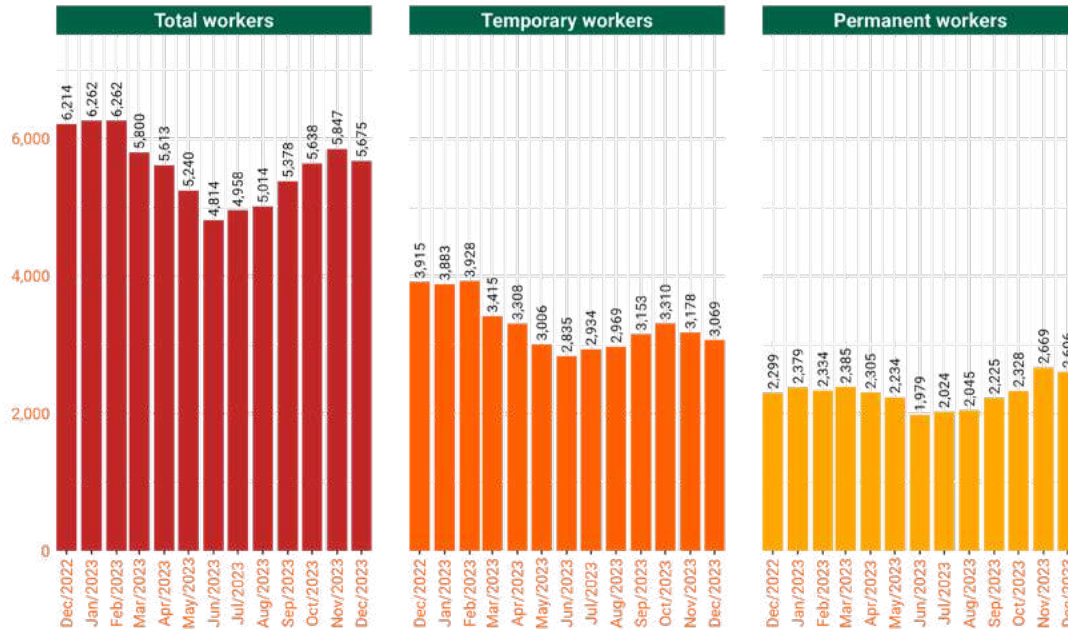


Source: Authors' elaboration with labor statistics from IMSS.

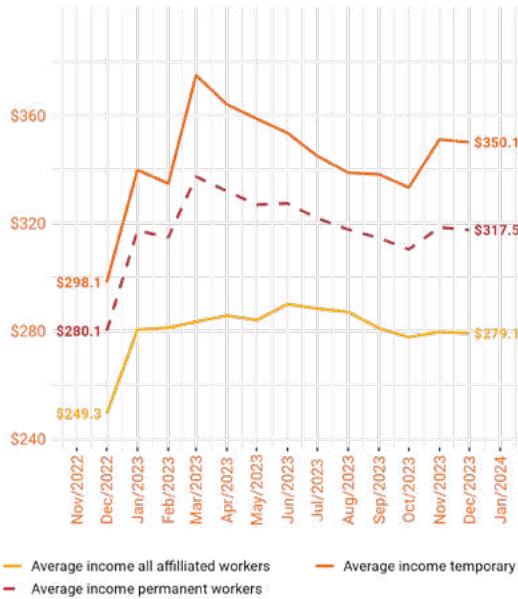


Figure 23. Estado: Michoacán. Municipality: Jacona.

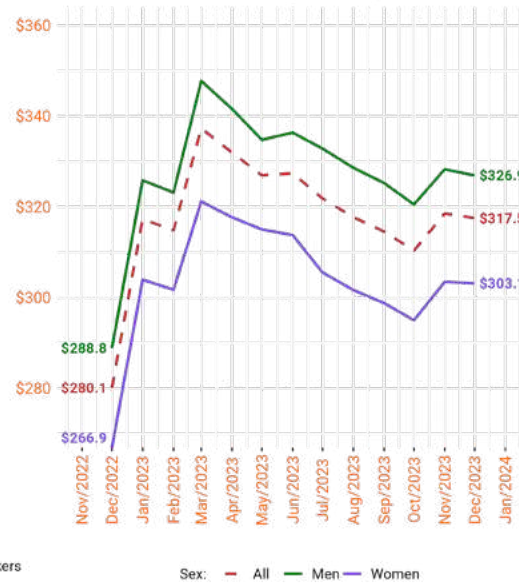
**Total, Permanent, and Temporary Agricultural Sector Workers Registered with IMSS**  
 State: Michoacán de Ocampo, Municipio: Jacona



**Base Wage for IMSS Contributions for Temporary and Permanent Workers**  
 State: Michoacán de Ocampo, Municipio: Jacona



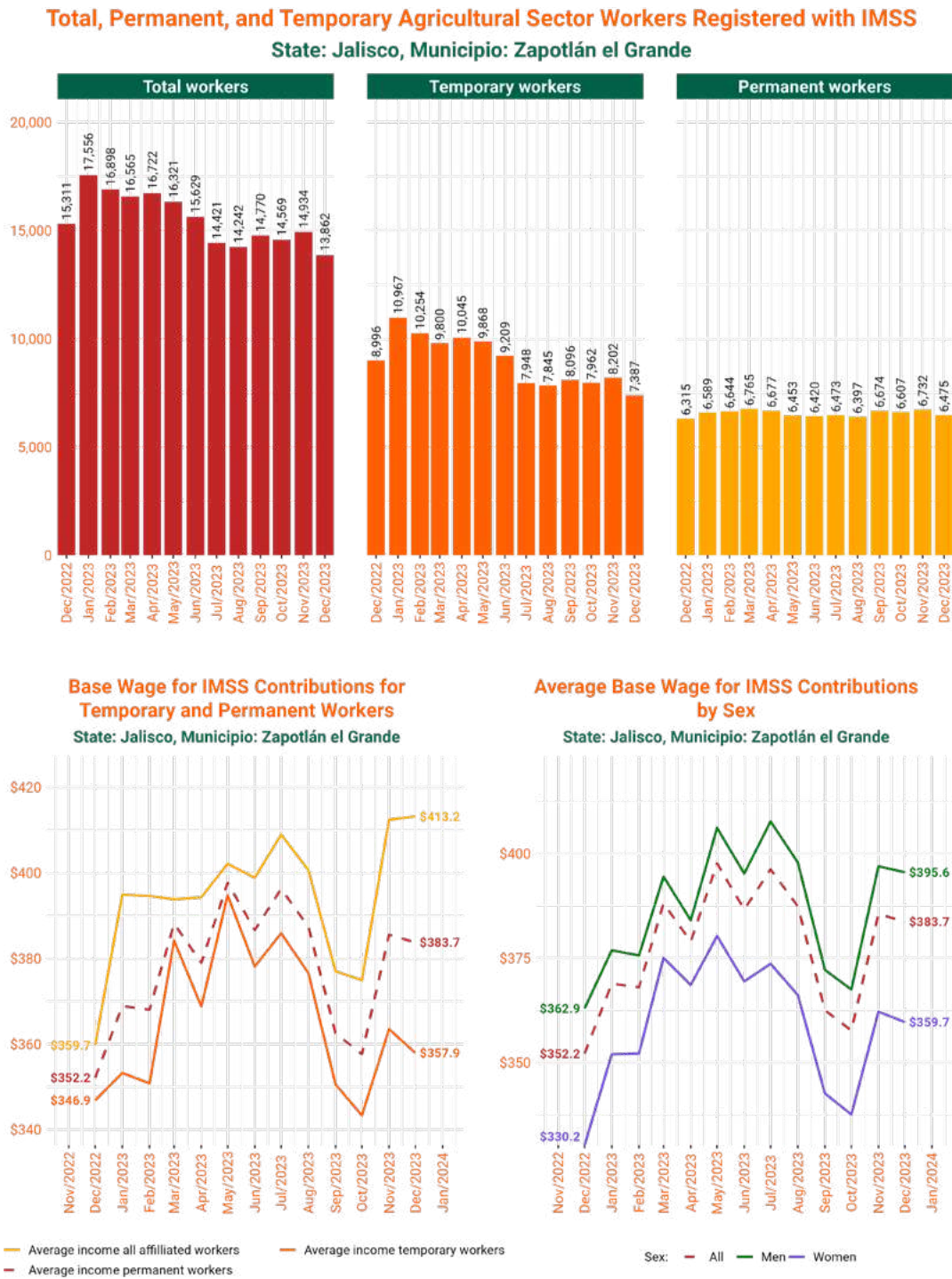
**Average Base Wage for IMSS Contributions by Sex**  
 State: Michoacán de Ocampo, Municipio: Jacona



Source: Authors' elaboration with labor statistics from IMSS.



Figure 24. State: Jalisco. Municipality: Zapotlán el Grande.

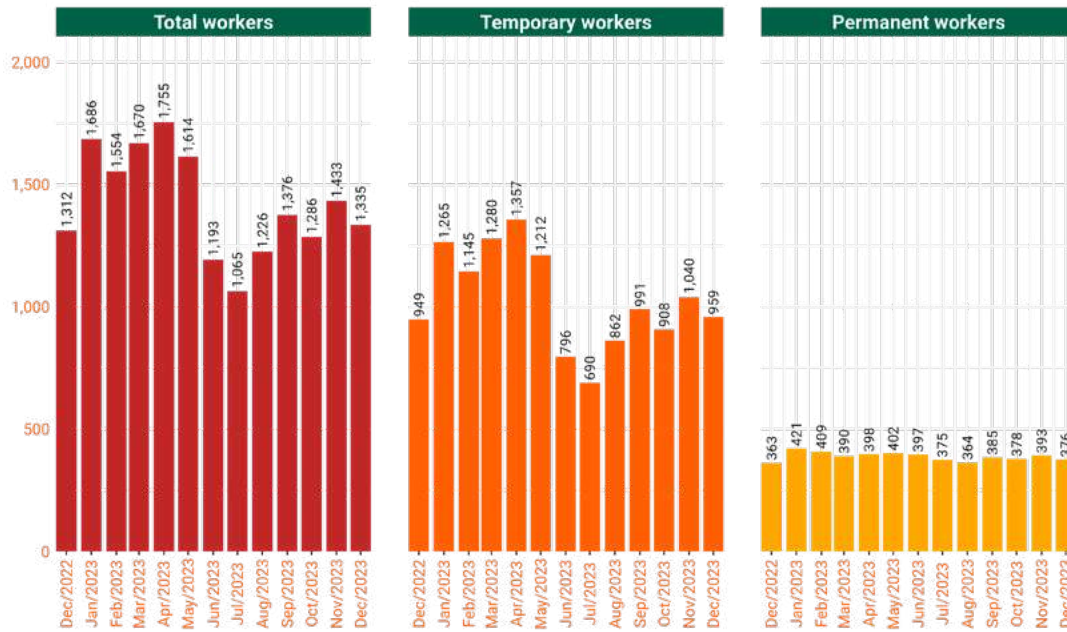


Source: Authors' elaboration with labor statistics from IMSS.

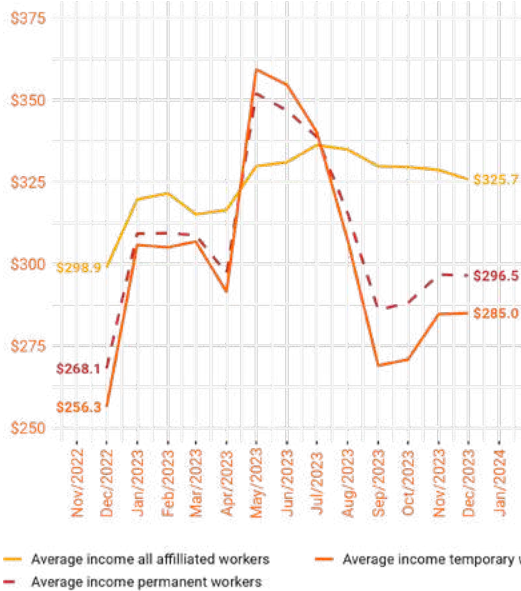


Figure 25. State: Jalisco. Municipality: Gómez Farías.

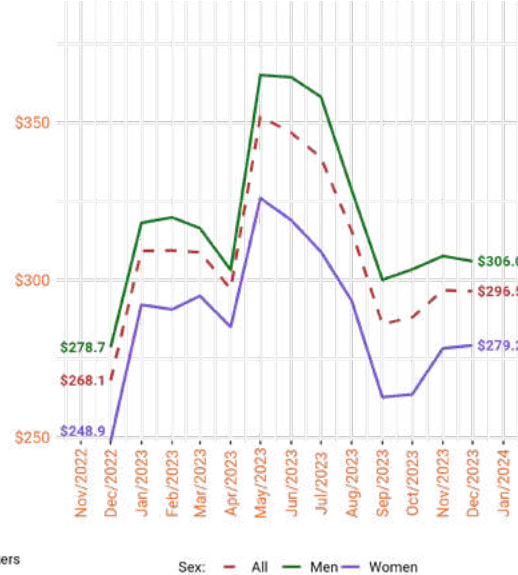
**Total, Permanent, and Temporary Agricultural Sector Workers Registered with IMSS**  
State: Jalisco, Municipio: Gómez Farías



**Base Wage for IMSS Contributions for Temporary and Permanent Workers**  
State: Jalisco, Municipio: Gómez Farías



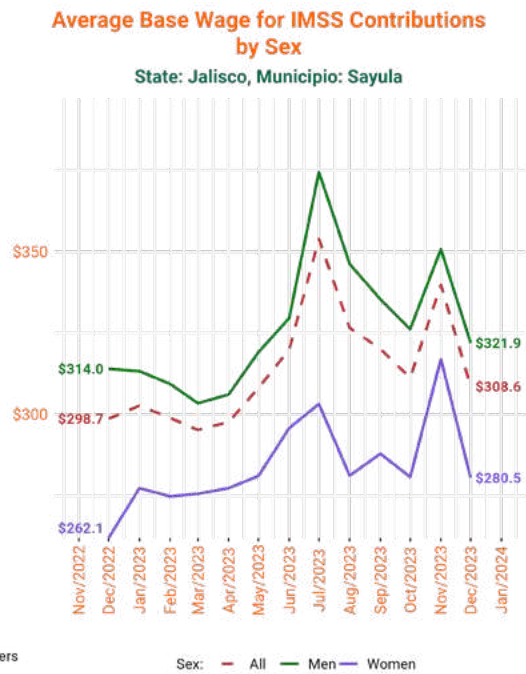
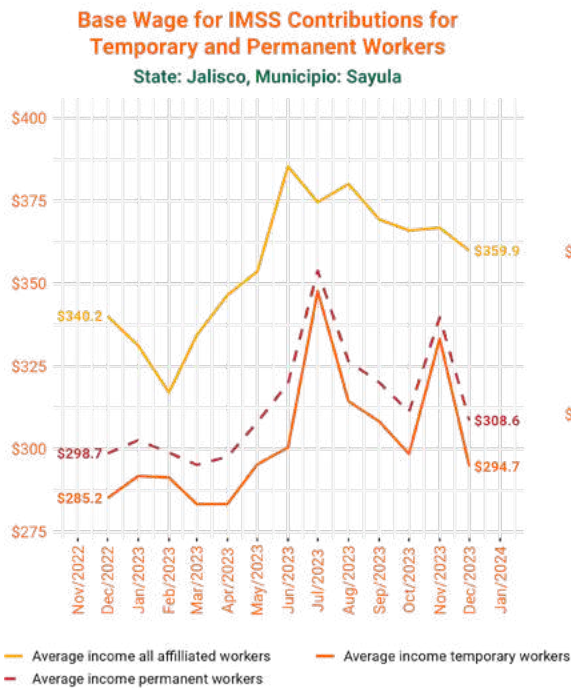
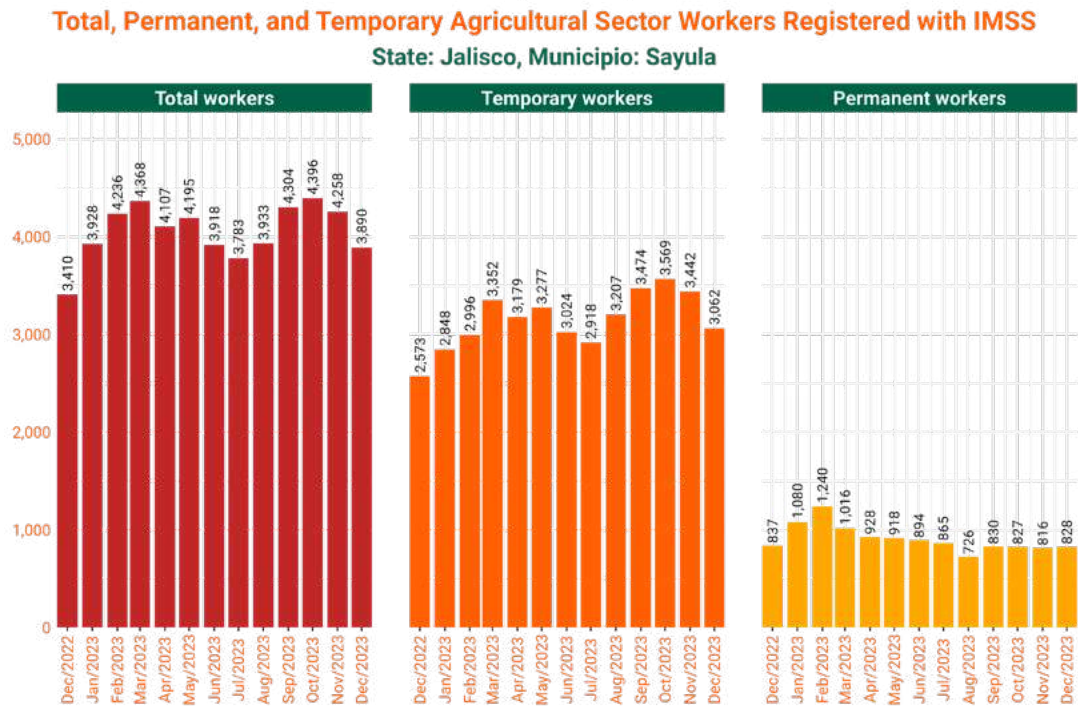
**Average Base Wage for IMSS Contributions by Sex**  
State: Jalisco, Municipio: Gómez Farías



Source: Authors' elaboration with labor statistics from IMSS.



Figure 26. State: Jalisco. Municipality: Sayula.

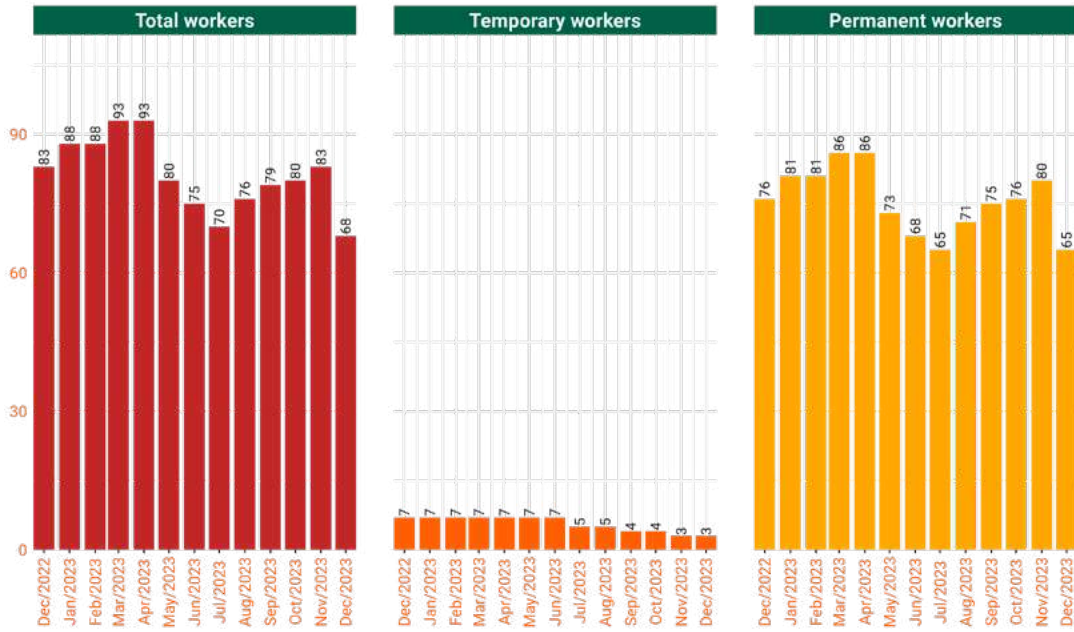


Source: Authors' elaboration with labor statistics from IMSS.



Figure 27. State: Jalisco. Municipality: Amacueca.

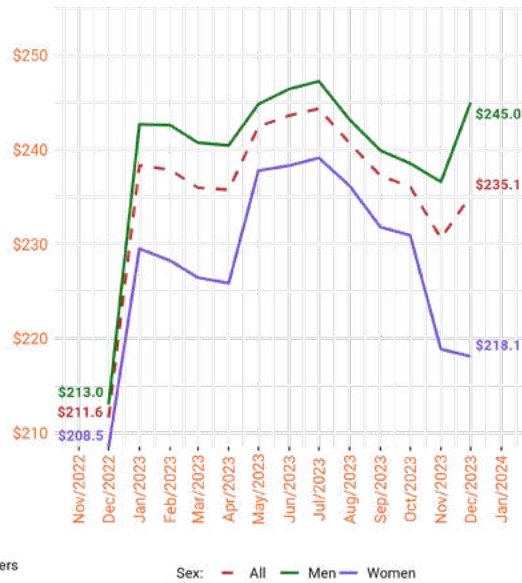
**Total, Permanent, and Temporary Agricultural Sector Workers Registered with IMSS**  
State: Jalisco, Municipio: Amacueca



**Base Wage for IMSS Contributions for Temporary and Permanent Workers**  
State: Jalisco, Municipio: Amacueca



**Average Base Wage for IMSS Contributions by Sex**  
State: Jalisco, Municipio: Amacueca

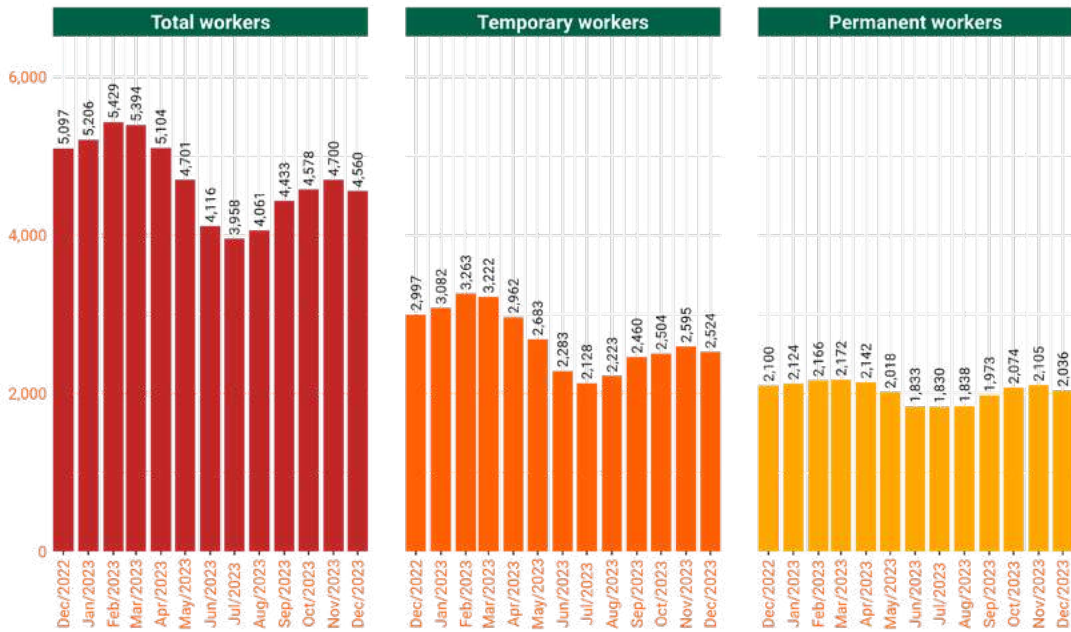


Source: Authors' elaboration with labor statistics from IMSS.



Figure 28. State: Jalisco. Municipality: Jocotepec.

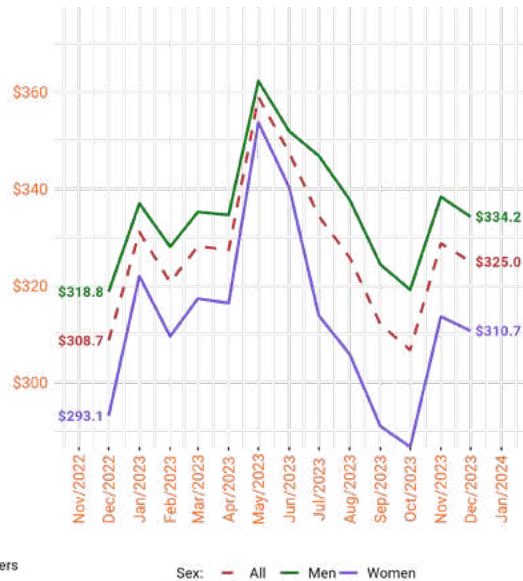
**Total, Permanent, and Temporary Agricultural Sector Workers Registered with IMSS**  
State: Jalisco, Municipio: Jocotepec



**Base Wage for IMSS Contributions for Temporary and Permanent Workers**  
State: Jalisco, Municipio: Jocotepec



**Average Base Wage for IMSS Contributions by Sex**  
State: Jalisco, Municipio: Jocotepec

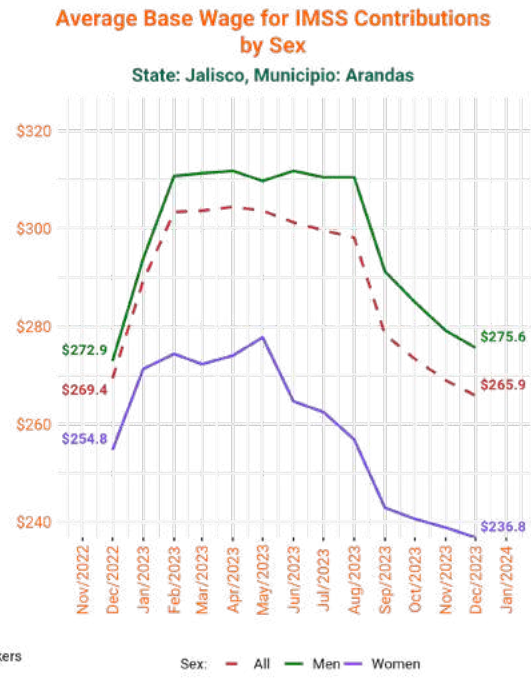
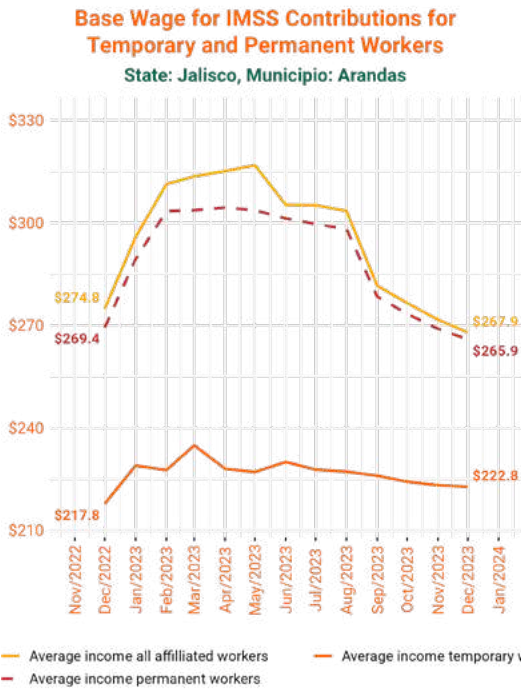
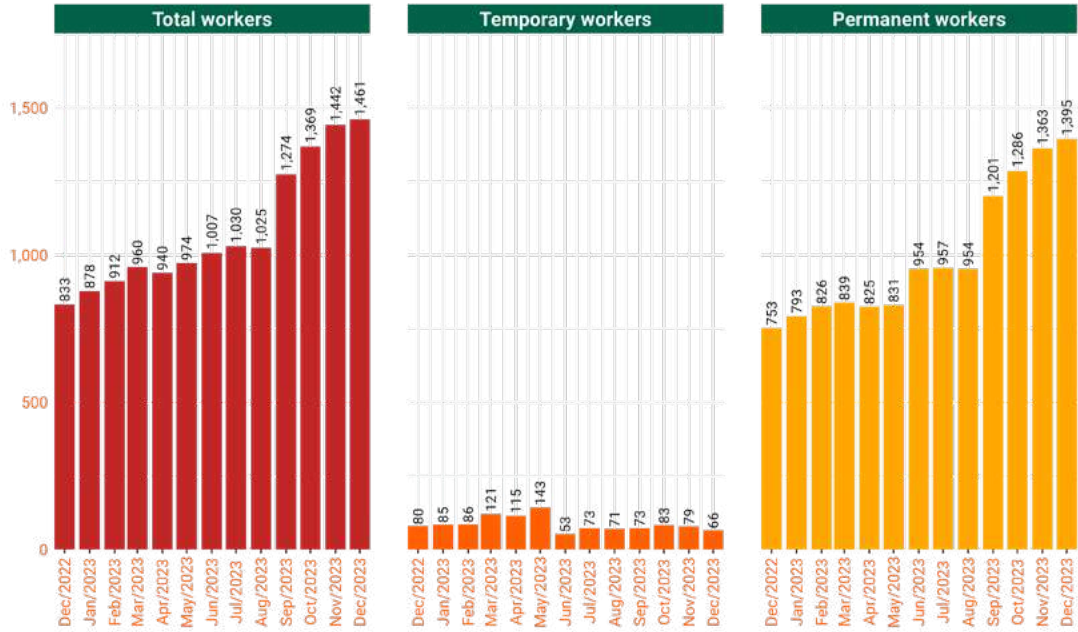


Source: Authors' elaboration with labor statistics from IMSS.



Figure 29. State: Jalisco. Municipality: Arandas.

**Total, Permanent, and Temporary Agricultural Sector Workers Registered with IMSS**  
State: Jalisco, Municipio: Arandas

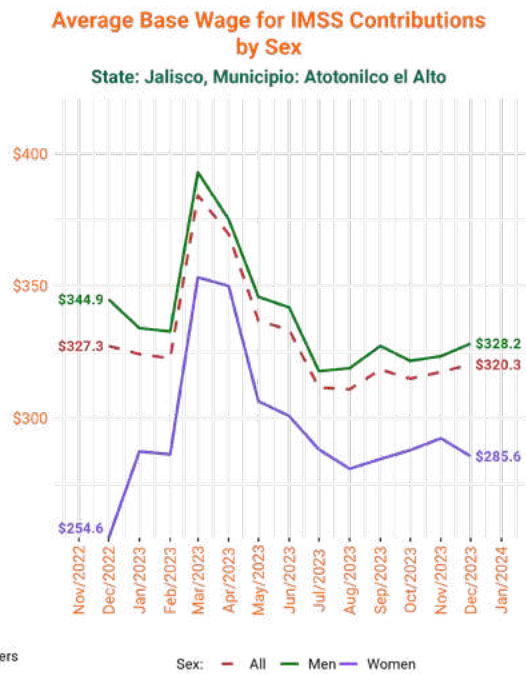
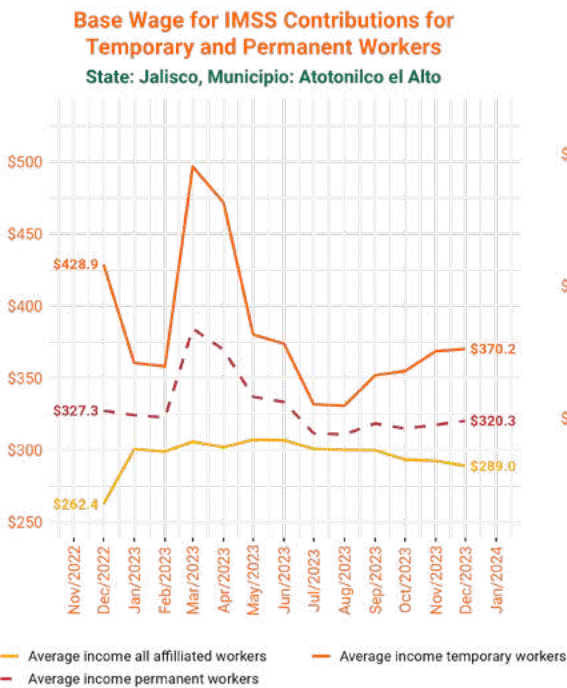
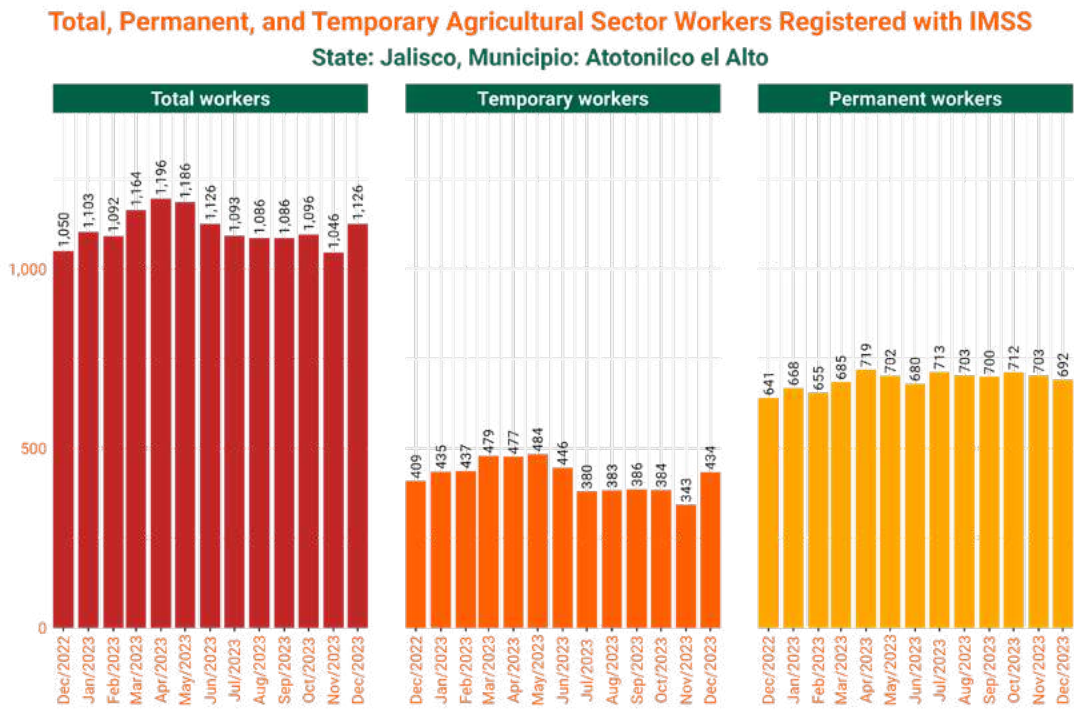


Source: Authors' elaboration with labor statistics from IMSS.





Figure 30. State: Jalisco. Municipality: Atotonilco el Alto.

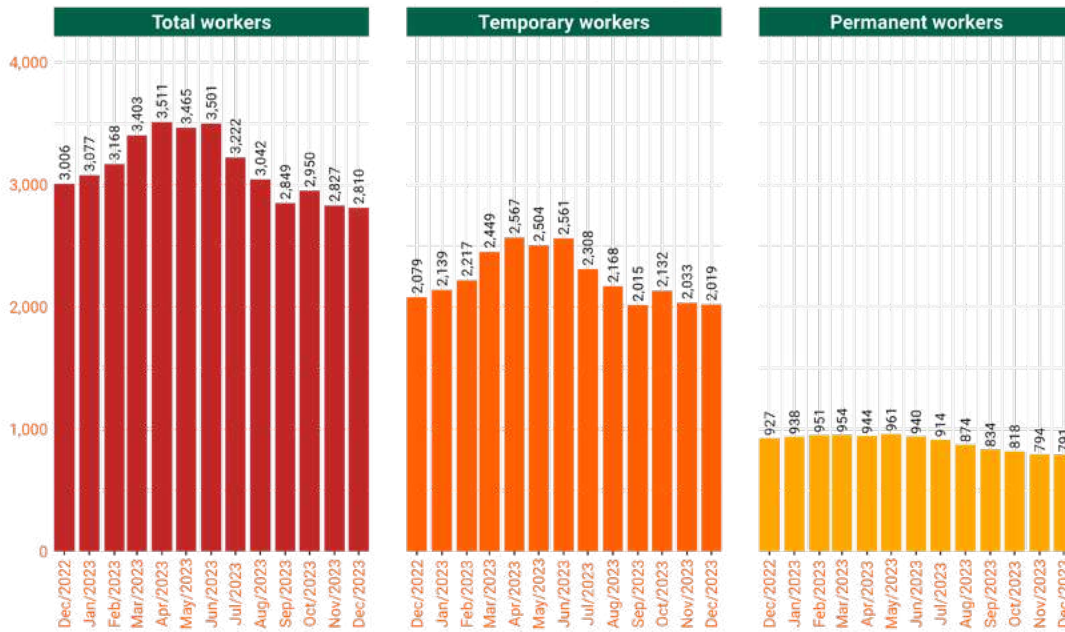


Source: Authors' elaboration with labor statistics from IMSS.

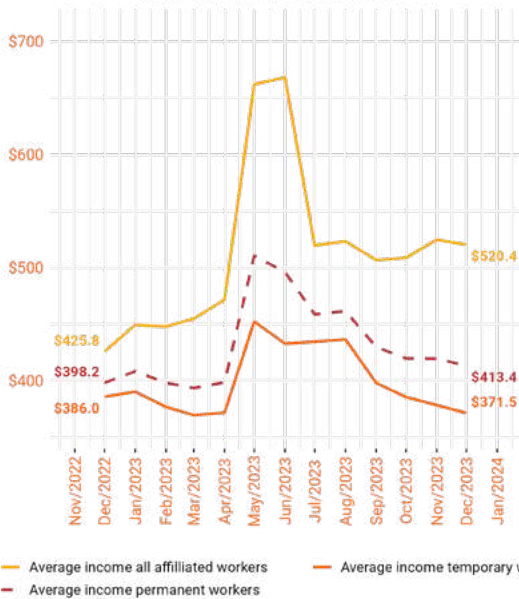


Figure 31. State: Jalisco. Municipality: Tequila.

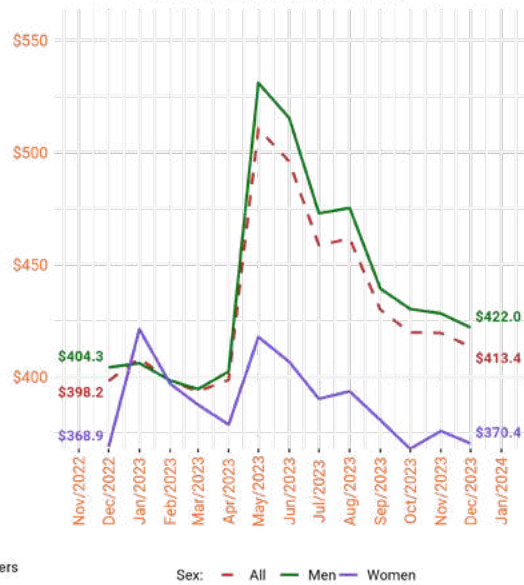
**Total, Permanent, and Temporary Agricultural Sector Workers Registered with IMSS**  
State: Jalisco, Municipio: Tequila



**Base Wage for IMSS Contributions for Temporary and Permanent Workers**  
State: Jalisco, Municipio: Tequila



**Average Base Wage for IMSS Contributions by Sex**  
State: Jalisco, Municipio: Tequila

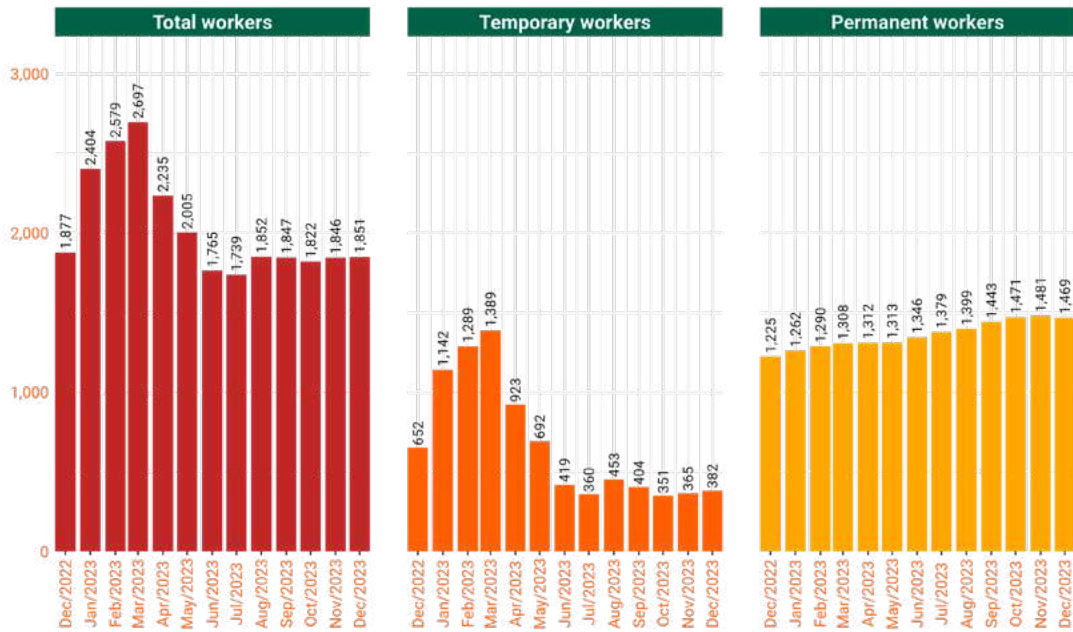


Source: Authors' elaboration with labor statistics from IMSS.

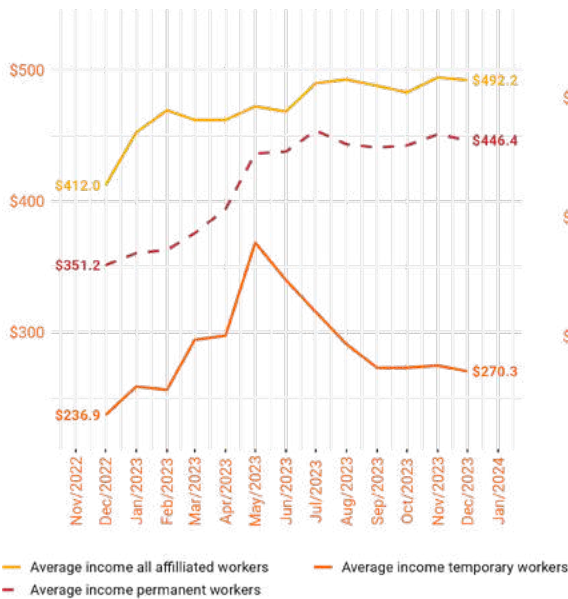


Figure 32. State: Jalisco. Municipality: Amatitán.

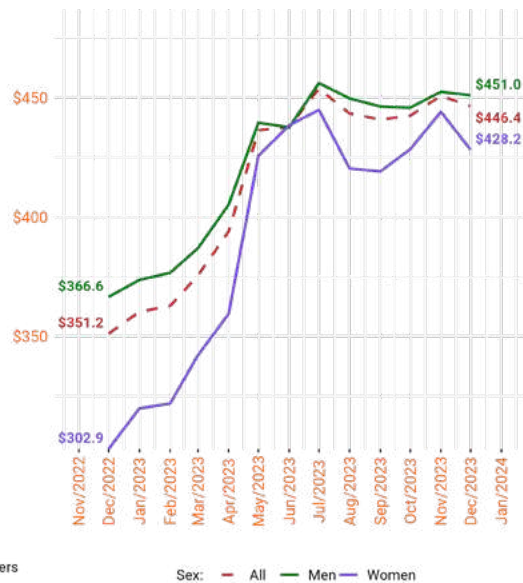
**Total, Permanent, and Temporary Agricultural Sector Workers Registered with IMSS**  
State: Jalisco, Municipio: Amatitán



**Base Wage for IMSS Contributions for Temporary and Permanent Workers**  
State: Jalisco, Municipio: Amatitán



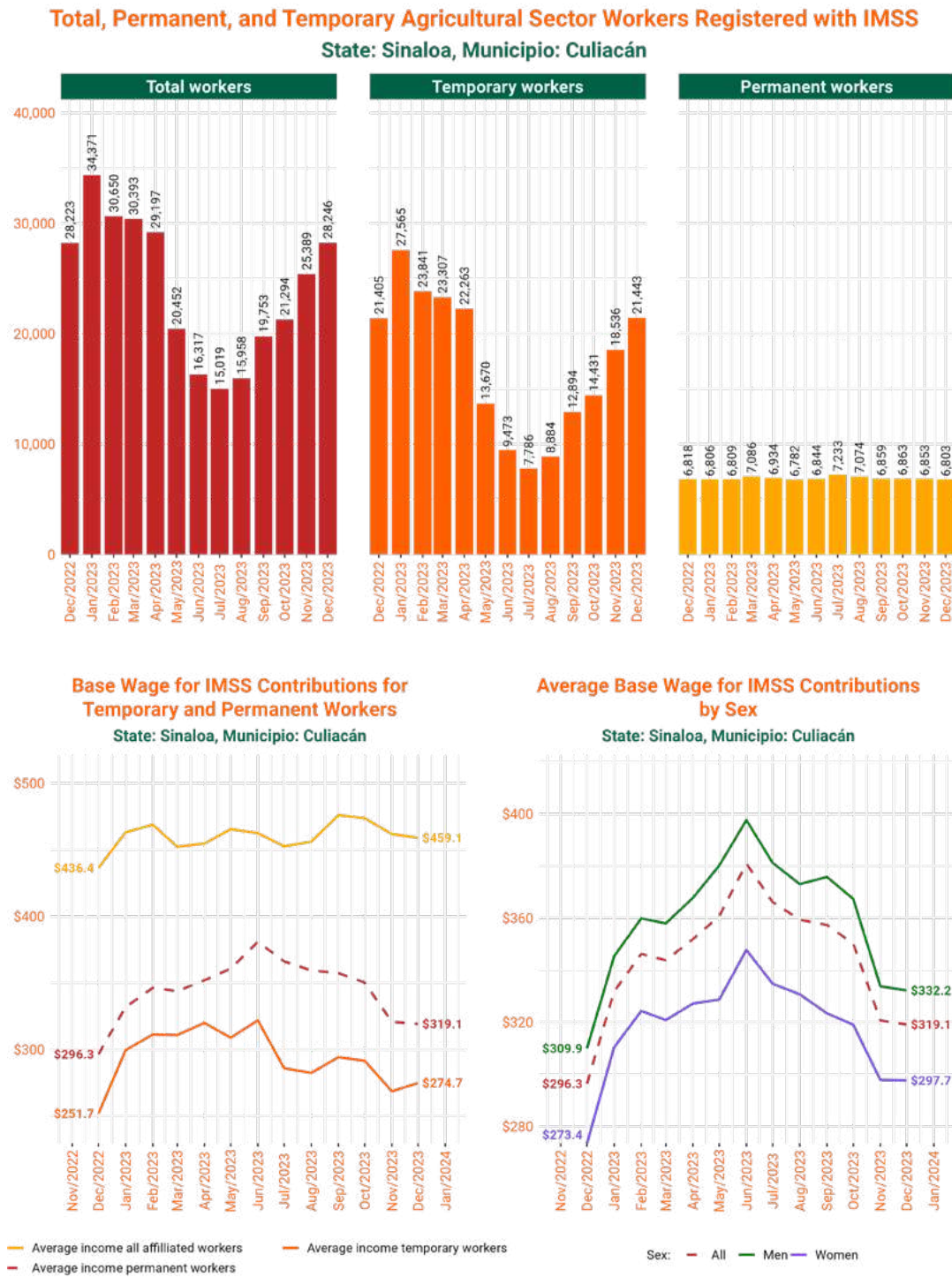
**Average Base Wage for IMSS Contributions by Sex**  
State: Jalisco, Municipio: Amatitán



Source: Authors' elaboration with labor statistics from IMSS.



**Figure 33.** State: Sinaloa. Municipality: Culiacán.

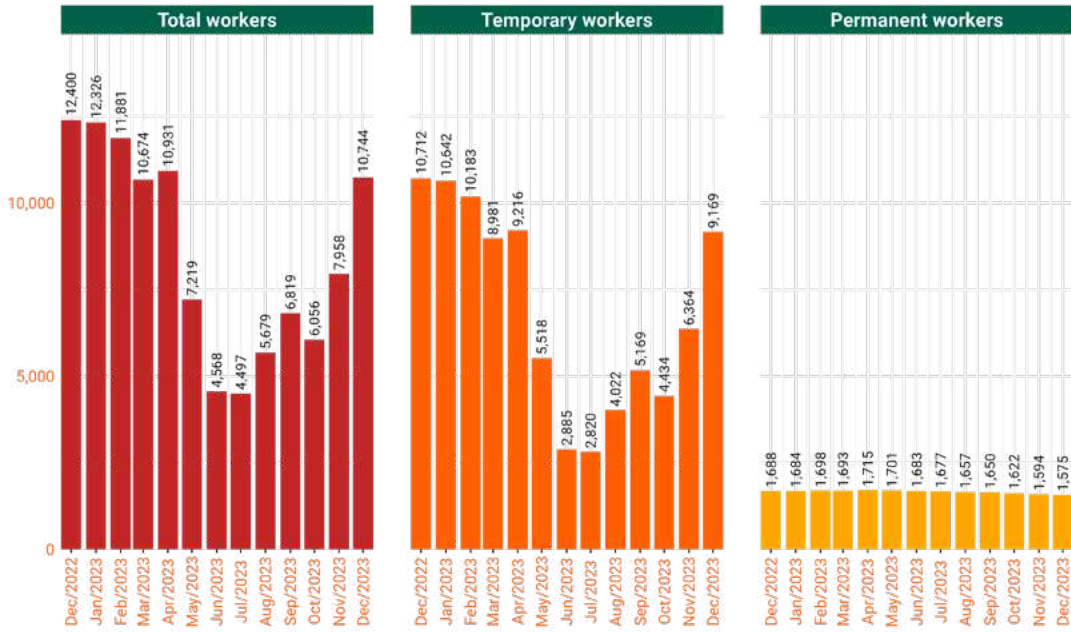


Source: Authors' elaboration with labor statistics from IMSS.

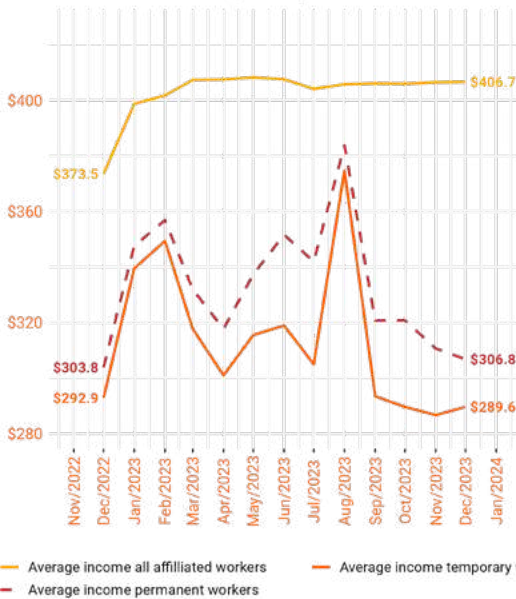


Figure 34. State: Sinaloa. Municipality: Navolato.

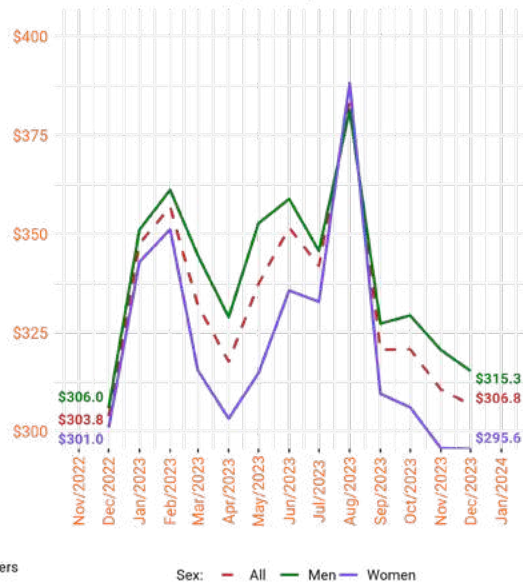
**Total, Permanent, and Temporary Agricultural Sector Workers Registered with IMSS**  
State: Sinaloa, Municipio: Navolato



**Base Wage for IMSS Contributions for Temporary and Permanent Workers**  
State: Sinaloa, Municipio: Navolato



**Average Base Wage for IMSS Contributions by Sex**  
State: Sinaloa, Municipio: Navolato

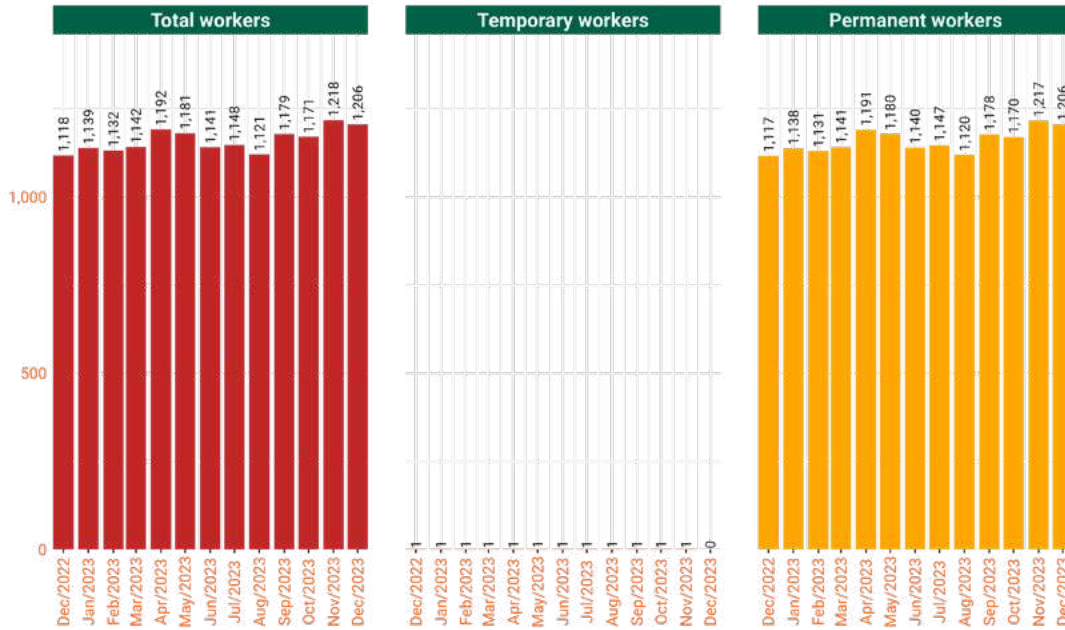


Source: Authors' elaboration with labor statistics from IMSS.

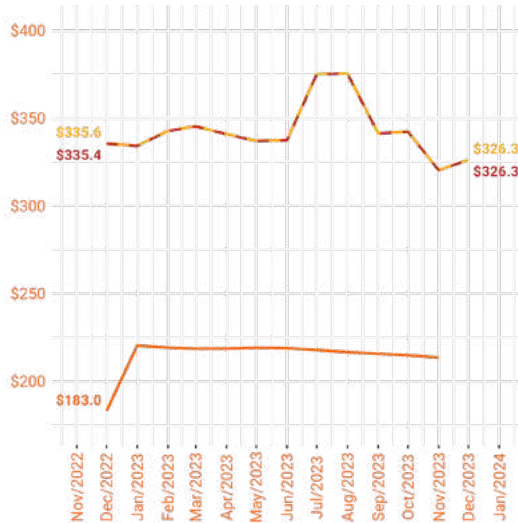


Figure 35. State: Guanajuato. Municipality: Pénjamo.

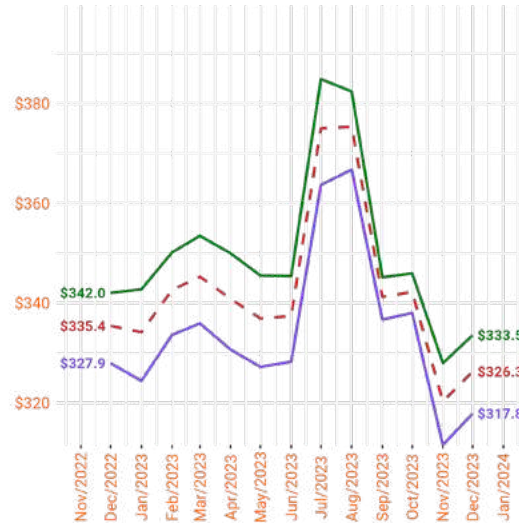
**Total, Permanent, and Temporary Agricultural Sector Workers Registered with IMSS**  
 State: Guanajuato, Municipio: Pénjamo



**Base Wage for IMSS Contributions for Temporary and Permanent Workers**  
 State: Guanajuato, Municipio: Pénjamo



**Average Base Wage for IMSS Contributions by Sex**  
 State: Guanajuato, Municipio: Pénjamo



— Average income all affiliated workers      — Average income temporary workers  
 - - Average income permanent workers

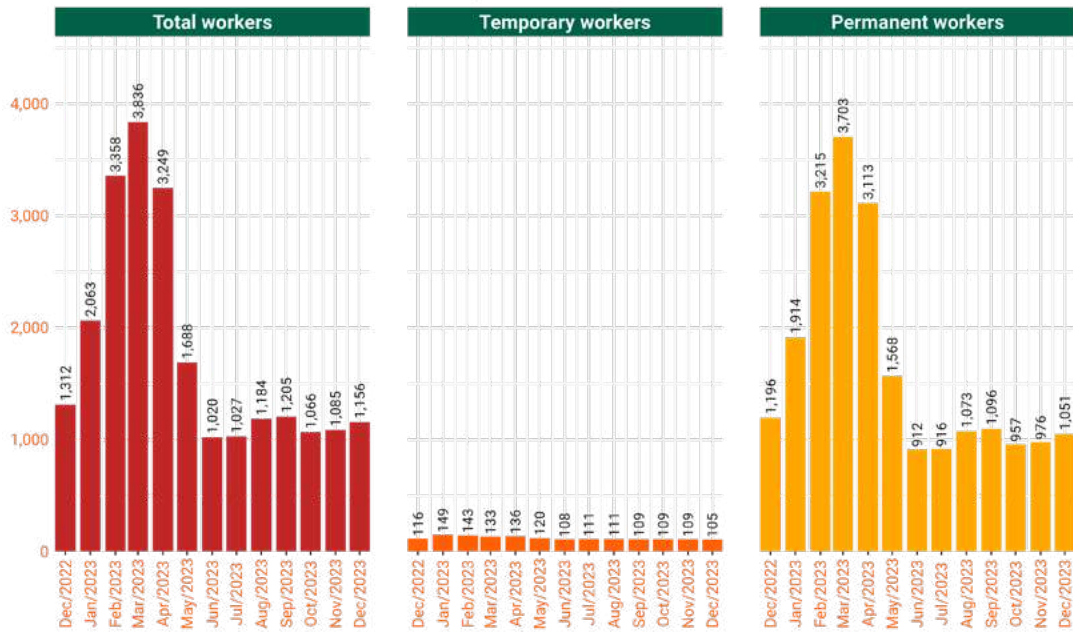
Sex: - - All      — Men      — Women

Source: Authors' elaboration with labor statistics from IMSS.

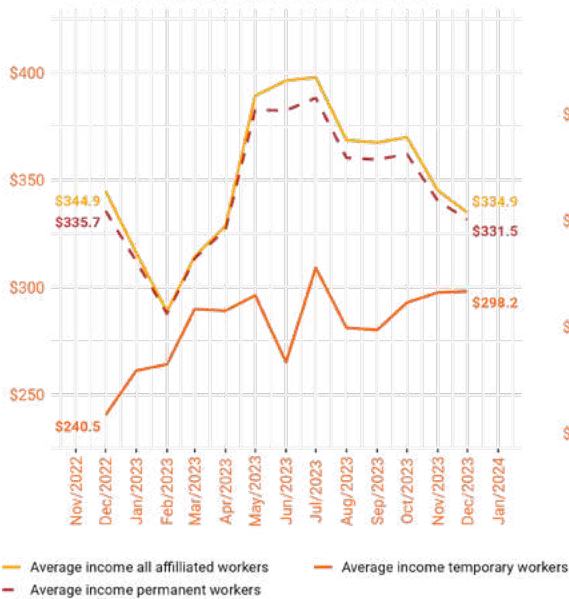


Figure 36. State: Guanajuato. Municipality: Abasolo.

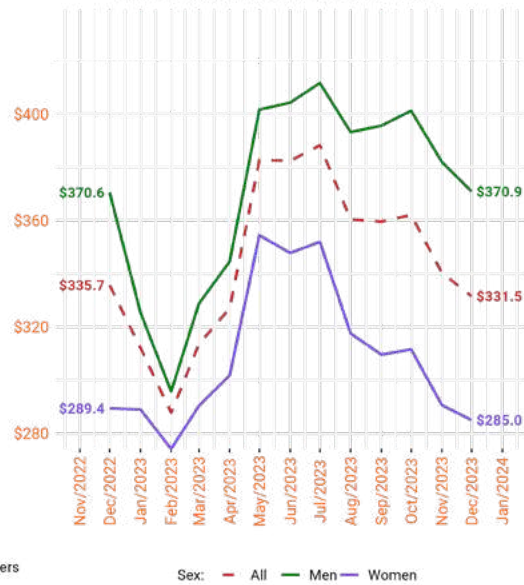
**Total, Permanent, and Temporary Agricultural Sector Workers Registered with IMSS**  
 State: Guanajuato, Municipio: Abasolo



**Base Wage for IMSS Contributions for Temporary and Permanent Workers**  
 State: Guanajuato, Municipio: Abasolo



**Average Base Wage for IMSS Contributions by Sex**  
 State: Guanajuato, Municipio: Abasolo

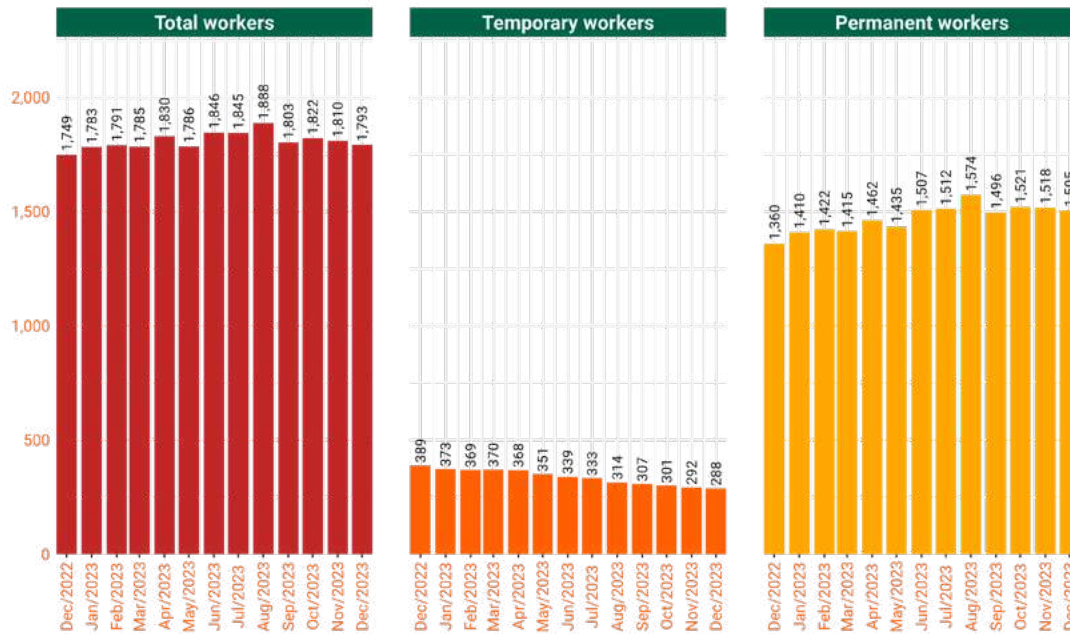


Source: Authors' elaboration with labor statistics from IMSS.

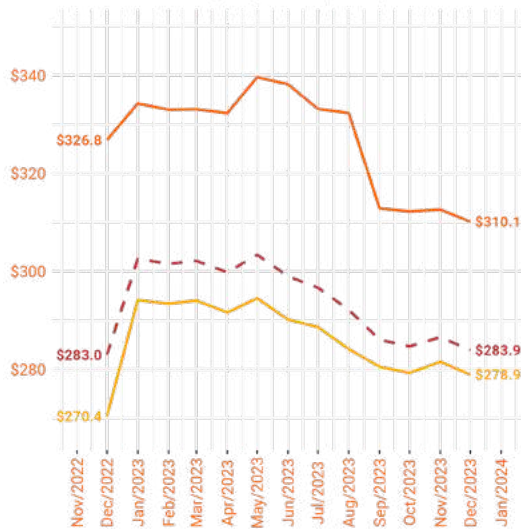


Figure 37. State: Guanajuato. Municipality: Irapuato.

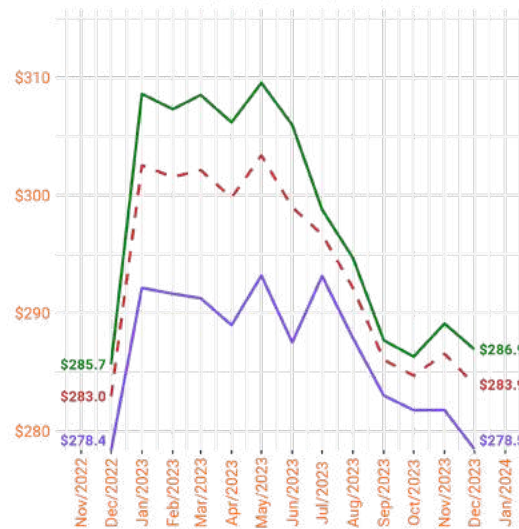
**Total, Permanent, and Temporary Agricultural Sector Workers Registered with IMSS**  
State: Guanajuato, Municipio: Irapuato



**Base Wage for IMSS Contributions for Temporary and Permanent Workers**  
State: Guanajuato, Municipio: Irapuato



**Average Base Wage for IMSS Contributions by Sex**  
State: Guanajuato, Municipio: Irapuato



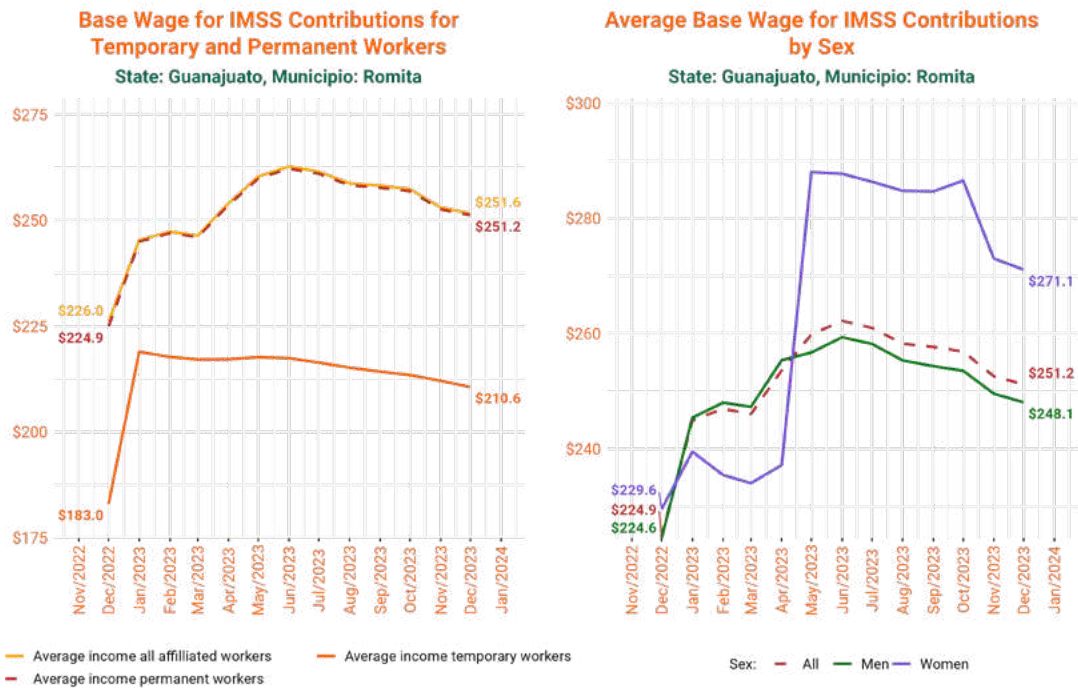
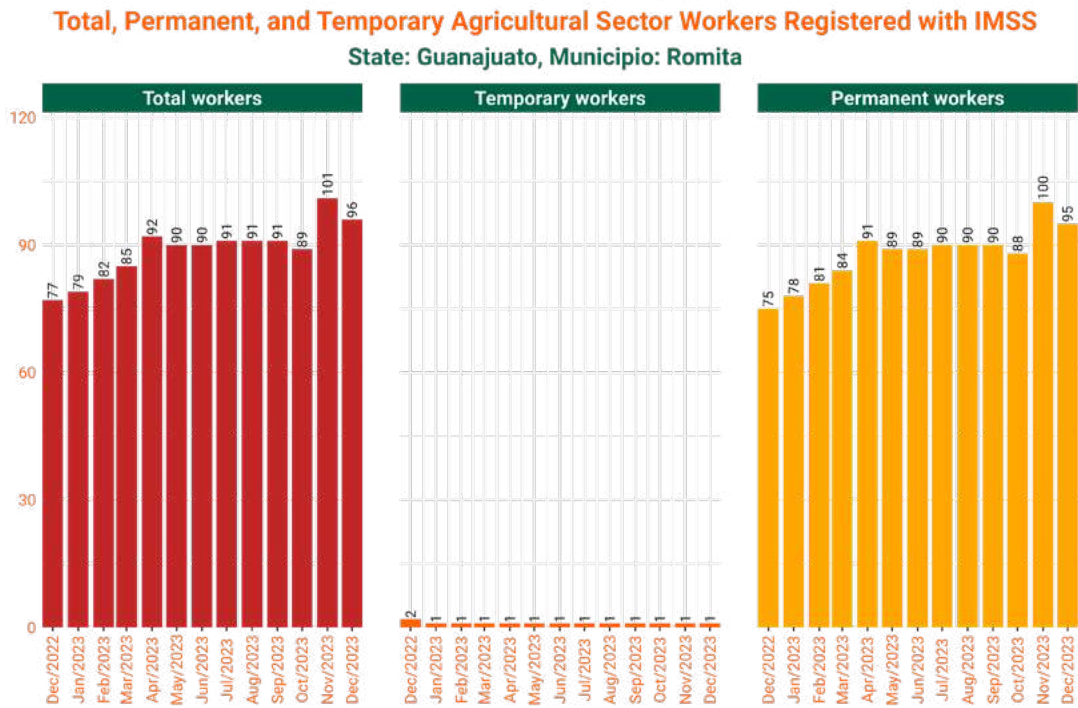
— Average income all affiliated workers    
 — Average income temporary workers    
 Sex: — All — Men — Women  
— Average income permanent workers

Source: Authors' elaboration with labor statistics from IMSS.





Figure 38. State: Guanajuato. Municipality: Romita.

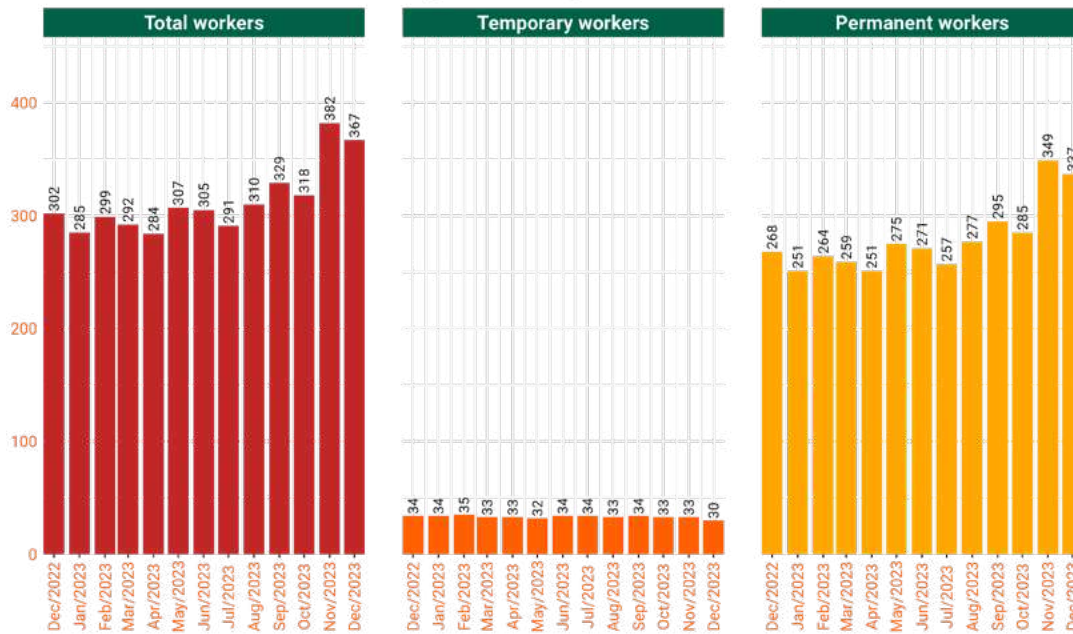


Source: Authors' elaboration with labor statistics from IMSS.

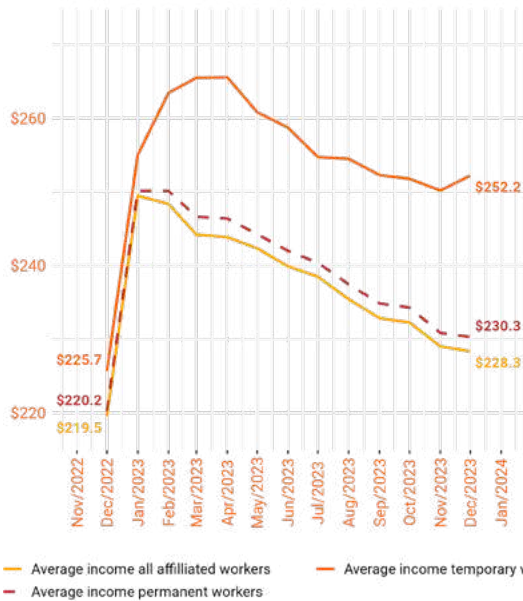


**Figure 39.** State: Guanajuato. Municipality: Valle de Santiago.

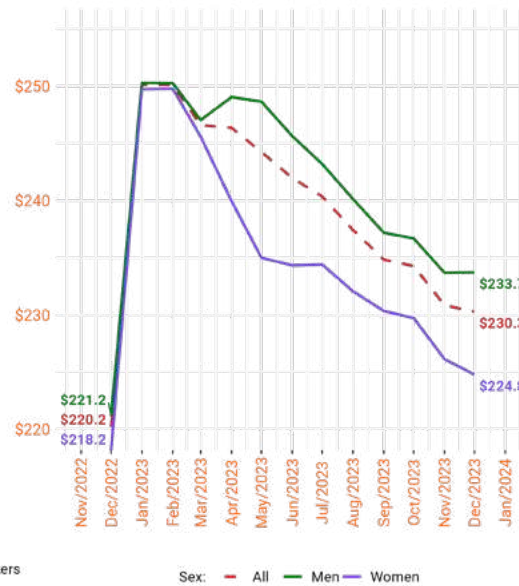
**Total, Permanent, and Temporary Agricultural Sector Workers Registered with IMSS**  
State: Guanajuato, Municipio: Valle de Santiago



**Base Wage for IMSS Contributions for Temporary and Permanent Workers**  
State: Guanajuato, Municipio: Valle de Santiago



**Average Base Wage for IMSS Contributions by Sex**  
State: Guanajuato, Municipio: Valle de Santiago

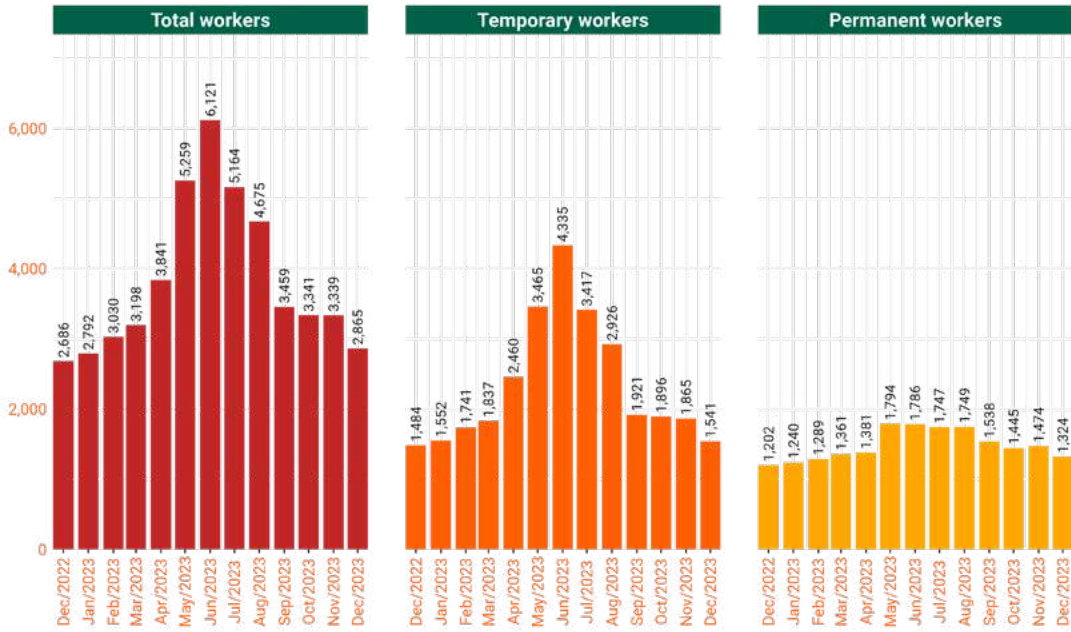


Source: Authors' elaboration with labor statistics from IMSS.



**Figure 40.** State: Guanajuato. Municipality: Dolores Hidalgo Cuna de la Independencia.

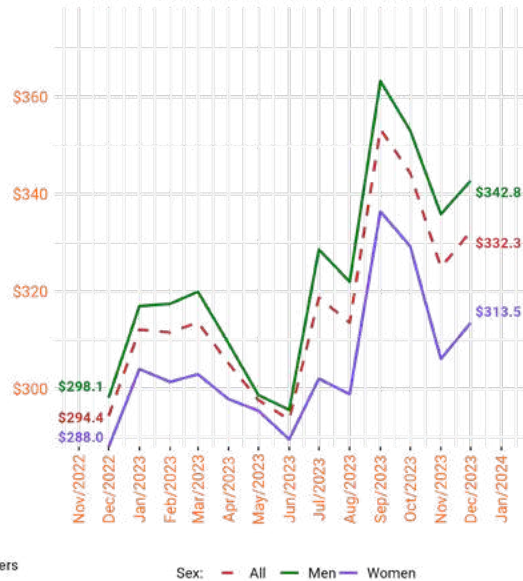
**Total, Permanent, and Temporary Agricultural Sector Workers Registered with IMSS**  
 State: Guanajuato, Municipio: Dolores Hidalgo Cuna de la Independencia



**Base Wage for IMSS Contributions for Temporary and Permanent Workers**  
 State: Guanajuato, Municipio: Dolores Hidalgo



**Average Base Wage for IMSS Contributions by Sex**  
 State: Guanajuato, Municipio: Dolores Hidalgo



Source: Authors' elaboration with labor statistics from IMSS.



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