Rural Migration News
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Rural America

California: Water, Migration

An atmospheric river brought record rainfall to northern California in October and December 2021. In October, some cities received five inches of rain in one day, a quarter of their usual annual total rainfall. So-called precipitation whiplash, drought followed by heavy rains, increases the need for reliable infrastructure to prevent flooding and to store water.

Groundwater levels have been falling in the San Joaquin Valley since the 1950s, but the decline has been fastest since 2010 due to drought and the drilling of deep wells. During the 2012-16 drought, the state enacted the Sustainable Groundwater Management Act in 2014 to slow the depletion of ground water.

The SGMA requires water districts to bring water pumping and replenishment into balance by 2040. Farmers have continued to drill deep wells for irrigation water, some 630 since 2014, including 40 percent in Tulare County. Drilling wells
costs about $60 a foot for shallow domestic wells and up to $500 a foot for deep wells with stainless steel casings.

Shallow wells for household water are often the first to dry up when water levels drop. Critics allege that the doubling of almond and pistachio acreage in Tulare County since 2014 shows the ineffectiveness of the SGMA, which delays until 2040 the deadline for bringing the extraction and replenishment of ground water into balance. These critics want scarce water to be reserved for US households and commodities that are consumed in the US rather than exported.

There are several ways to measure water availability and usage. The most comprehensive measure emphasizes that half of the state’s water flows into wetlands and the ocean, so-called environmental water. The other half is used by agriculture (80 percent of the human half) and people and industry (20 percent of the human half). Most human water usage, about 100 gallons per person a day, is used to irrigate lawns.

Migration

Covid encouraged two major migration trends, from large cities to suburbs and from high-tax northern states to lower-tax southern states, as from California to Texas. The suburbs of Houston and Austin were the fastest growing US areas to internal migration since 2020.

The median price of a single-family home in California exceeded $800,000 in spring 2021 and continued to increase. California has 13.5 million households. Over 500,000 of these households moved in 2020, including 130,000 that left the state. Most households that moved within California moved from coastal to inland areas to take advantage of lower cost housing and the ability to work remotely. A net 100,000 households left the Los Angeles metro area, often for Inland Empire cities in Riverside County. A net 44,000 households left the San Francisco area, often for the Sacramento region.

The city of Eastvale in northwestern Riverside County highlights the move from coastal to inland areas. Eastvale had 4,000 residents and a dozen dairies in 2000, and today has 70,000 residents and no dairies. Some 40 percent of Eastvale residents are Hispanic, 30 percent are Asian, and 20 percent are white; median household income is almost $120,000.

Bakersfield, the Texas of California known for agriculture and oil, was the fastest growing among the state’s 10 largest cities in 2020, bringing its population to almost 400,000. The median price of houses in Kern County was $340,000 in October 2021, less than half of the state’s average.

Susanville in northeastern California has two state prisons with about 7,000 inmates and 7,000 people in the city. The prisons employ about half of the adults in Susanville, the seat of Lassen county, and the mostly white residents are trying to block the closure of the minimum security facility that holds mostly inmates of color. California had a peak 160,000 inmates in the early 2000s, and today has almost 100,000 inmates.

Between 2016 and 2020, some 109,000 new homes a year were built in California, far fewer than the 500,000 new housing units a year promised by Governor Gavin Newsom.

Groups of thieves stole merchandise from luxury stores in the San Francisco area in November and December 2021, prompting discussion of why brazen retail theft is increasing. The reasons cited include the ease of selling stolen merchandise on internet marketplaces such as Amazon and Facebook as well as state laws such as Prop 47 that raised the amount of goods that must be stolen to at least $950 for the theft to be considered a felony crime. Prosecutors have difficulty following the thieves who are apprehended up the chain of command to the entrepreneurs who organize mobs to storm stores and steal merchandise for them to resell.

San Francisco Mayor London Breed announced in December 2021 that police would clean up the “nasty streets” of the Tenderloin beset by drug dealers and crime. Breed described thefts from luxury San Francisco stores as “mass looting events” and vowed to stop them. There were twice as many deaths from drug overdoses in San Francisco in 2020 as from covid.

Asian Americans operate many of the convenience stores in Black neighborhoods. Efforts to unite Asian and Black leaders against hate crimes have floundered over the issue of policing. Many Asian leaders call for more police to protect private property, while some Black leaders want the police due to encounters that result in violence and death.

The US population rose by only 400,000 in the year ending July 1, 2021, down from the usual two million a year increase. Net migration was about 250,000, and there were 150,000 more births than deaths.

The state’s $263 billion budget for 2021-22 included $12 billion in stimulus payments to low-income state residents. California has a budget surplus because the rising stock market generated capital gains for
wealthy residents and because consumer spending generated sales tax revenue.

**Meat and Migrants**

Cattle farmers complained throughout 2021 that they lost money while meatpackers made record profits. Four firms process 85 percent of US beef, four firms control 70 percent of pork processing, and four firms control 55 percent of poultry processing.

Critics complain that consolidation in meatpacking allows meatpackers to reduce the prices they pay to farmers for live cattle to 33 percent of the average retail price of beef in 2021 and to 20 percent of the average retail price of pork. In the 1970s, the farm share of retail beef prices was about 60 percent, and they received 50 percent of retail pork prices.

Most beef farmers are cow and calf operations that raise calves until they are old enough to be sold to feed lots before being slaughtered. The feed lots, concentrated in Texas, Nebraska, Kansas and Colorado, allegedly reduce the price they pay to farmers for calves to satisfy meatpackers seeking low-cost animals. Meatpackers have private contracts with major feedlots that set prices based on what happens in public auctions that deal with ever fewer cattle, making it difficult to know exactly what meatpackers pay for fattened cattle.

President Biden in January 2022 made $100 million in grants and loans from the American Rescue Plan available to small meat processors to increase competition between meatpackers for farmers’ cattle in a bid to narrow the gap between the farm and retail price of meat. Critics argued that, just as the Trump administration turned to tariffs to deal with economic problems, the Biden administration is turning to anti-trust.

**Covid**

Animal slaughtering and processing (NAICS 311616) employed an average 529,000 workers in 2020. Employment declined from 514,000 in 2001 to a low of 481,000 in 2013-14 before rising 10 percent by 2020. Average weekly wages rose from $500 in 2001 to $911 in 2020, and were up over 10 percent between 2019 and 2020. By contrast, average weekly wages rose only 11 percent over the five-year period between 2006 and 2011.

Poultry processing (NAICS 311615) employment averaged 240,000 workers in 2020, 45 percent of employment in meatpacking. Like overall meat sector employment, poultry employment fell from 242,000 in 2001 to a low of 220,000 in 2013, and rose nine percent by 2020. Poultry weekly wages rose from $425 in 2001 to $761 in 2020, and were up eight percent between 2019 and 2020. Between 2006 and 2011, poultry wages rose nine percent.

The House Select Subcommittee on the Coronavirus Crisis in October 2021 reported that 59,000 meatpacking workers contracted covid in 11 months of 2020-21, more than twice the previous 23,000 estimate. The data were from five major meatpackers, JBS USA, Tyson Foods, Smithfield Foods, Cargill and National Beef. The meatpackers countered that they spent heavily to prevent the outbreak and spread of covid among their employees.

Half or more of employees contracted covid in some plants, including at a JBS plant in Hyrum, Utah, plant and Tyson’s Amarillo, Texas plant. Some meatpackers complained of too few workers through-out 2021. FPL in Georgia said that absenteeism averaged 20 percent in 2021 despite a starting wage of $15, forcing FPL to decide each day which dis-assembly lines to operate.

Tyson earned $3 billion in profits in 2021, and in December 2021 announced that it would give its 80,000 hourly workers year-end bonuses of $300 to $700. Tyson’s average labor costs were $24 an hour for wages, payroll taxes and benefits at the end of 2021.

Tyson announced that it would spend over $400 million a year to increase automation in its meat plants, beginning with machines that can debone chicken. Tyson processed 37 million chickens a week in 2021, which was only 80 percent of capacity due to too few workers. Tyson believes that the semi-automated dis-assembly lines in nine new chicken processing plants will allow the company to process 50 million chickens a week by 2025.

**Labor, Trucking, Covid**

The US added over 199,000 jobs in December 2021, bringing employment to 149 million, about 3.5 million below the 152.5 million employment level of February 2020. The unemployment rate was 3.9 percent. The US added an average 537,000 jobs a month in 2021 or 6.4 million during the year.

Before the pandemic, the unemployment rate was about 3.5 percent. The rate peaked at 14.8 percent in April 2020 as lockdowns led to business closures and layoffs.

A major question is whether the US has returned to full employment with a lower labor force participation rate, 62 percent, as workers retired early and women dropped out of the labor force. The labor force participation rate dropped from 63.3 percent in February 2020.
There was debate about why workers who quit or were laid off during the pandemic did not return to work. Employers cited extended unemployment insurance benefits and government payments that left households with historically high levels of savings, while many workers said that during their layoffs they re-assessed their lives and now want better jobs, the “great reassessment.”

Job vacancies continued to outnumber job seekers in fall 2021, prompting employers to raise wages and to replace workers with machines and self-service, such as self-checkout registers in stores and tablets that allow diners to order food in restaurants. There were 10.4 million unfilled jobs and 8.4 million jobless workers in August 2021.

Three percent of all US workers, some 4.4 million, and six percent of employees in accommodation and food services, voluntarily quit their jobs in September 2021, a record quit rate. Some 20 million US workers left their jobs between May and September 2021. Quit rates fall in recessions when workers are anxious about finding another job, and were about 1.5 percent in 2008-09.

Minimum wages rose in 21 states and many cities and counties January 1, 2022, including to $15 an hour in California.

**Trucking**

The ports of Long Beach and Los Angeles handle 40 percent of seaborne imports to the US, and the Biden administration in Fall 2021 persuaded both ports to operate on a 24/7 basis. However, many slots to haul containers from the ports remained unused due to a shortage of truckers.

The median wage of commercial truck drivers in 2020 was $47,130. Truckers are typically paid by the mile they drive, so being forced to wait to load or unload lowers their earnings. About seven percent of commercial truck drivers are women, and 40 percent are minorities. Ex-drivers say that wages are too low to compensate for the waiting hours and time away from home. The American Trucking Association says that there is a shortage of 80,000 truckers that will grow as more truckers retire and turnover rates among new hires approach 90 percent.

Amazon, the second largest private US employer with 1.4 million worldwide employees in Fall 2021, raised its minimum wage to $15 in 2018 and increased wages more in 2021. Worker turnover is over 100 percent in many Amazon warehouses, meaning that two workers must be hired in one year to keep one job slot filled.

Industrial countries are struggling to deal with gig workers, independent contractors who use apps to find customers but are paid by the app’s owner. There are an estimated four million gig workers in the EU, which in December 2021 proposed that app owners treat those who use their apps to provide services as employees who are entitled to the minimum wage and benefits that are financed by payroll taxes. The EU estimated that 28 million people in the EU use apps to find work, and that employee status would initially be limited to those such as Uber drivers who are subject to “algorithmic management.”

**Covid**

The Biden administration in September 2021 issued mandates that require employees of federal contractors, 17 million healthcare workers, and the 84 million employees of private employers with 100 or more employees to be vaccinated or tested weekly beginning in January 2021, later delayed until February 2021.

Federal judges have blocked some of these vaccination mandates from going into effect, and the US Supreme Court heard arguments in January 2022 over whether these vaccination mandates were lawful. The USSC appeared ready to uphold the healthcare worker mandate for facilities that receive federal funds, but not the mandate of the Occupational Safety and Health Administration for private employers.

Hotels and restaurants reported difficulty finding workers to fill jobs, encouraging them to raise wages, reduce services, and automate. Many raised wages to encourage laid-off employees to return and to attract new workers. Raising wages for low-level employees often required wage increases throughout the wage hierarchy to avoid wage compression.

Many hotels reduced services, such as not cleaning guest rooms every day and shortening restaurant hours. Some hotels are adopting the airline model of piece meal pricing and charging guests who use hotel amenities such as fitness rooms and pools or those who want to check in early or check out late.

Restaurants are automating tasks in the kitchen and the dining room, such as giving diners tablets to order food and using $1,000 a month Servi robots to bring food from kitchens to diners. Many restaurant robots are services; the Flippy that fries food costs $3,000 a month and reduces the risk of workers transmitting food-borne illnesses.

Covid accelerated changes in the labor market and in politics. Democrats often support government mask and vaccine mandates and school closures and stay-at-home orders to highlight the role of government in protecting residents, while Republicans often oppose intrusion on individual
rights. Older baby boomers who own their homes and have stocks emerged better off after covid and less reliant on government, while younger Americans whose lives were disrupted by the 2008-09 recession faced a second shock with covid and may expect more government assistance.

Trust in some public institutions eroded with covid, including public health officials unable to develop reliable tests and to find consistent messaging on covid-prevention policies, while the private sector’s rapid development of vaccines won praise. Trust in public experts and intellectuals fell, as experience proved that some of their strong pronouncements were wrong. Voters in 2022 may punish incumbents. Unlike the unifying effect of the 9/11 attacks, covid appears to have deepened US political divisions.

Education became a controversial public institution during covid as school boards, parents, and teachers debated how to remain open amid the omicron surge and how to teach about discrimination, race and gender. Most teachers belong to unions that support Democrats, which led to fighting between Democratic leaders and teachers’ unions in cities such as Chicago, where the teachers’ union insisted on remote learning in January 2022. There are almost 50 million K-12 students, and a return to remote learning could trigger a backlash.

A dozen states have enacted laws that prohibit teaching that one group of people is inherently superior or inferior to another, prompting questions about how to teach about colonialism, imperialism, and social Darwinism. In some states, parents are demanding that particular books not be taught in classes and be removed from libraries. One background issue in many debates is critical race theory, which argues the legacy of white supremacy is still embedded in US society through the founding of the British colonies in North America and in fundamental US laws and institutions.

Inflation

Inflation lifted prices at 6.8 percent in the year to November 2021, the largest increase in three decades. The Biden administration and the Fed assumed that rising prices were a short-term reflection of increased purchases of goods attributed to $1,400 stimulus payments and stay-at-home orders, and that goods-driven inflation would slow as consumers returned to purchasing services such as restaurant meals and hotel stays.

The delta and omicron covid variants in Fall 2021 and Winter 2022 kept consumers at home and purchasing goods, stretching supply-chains and driving up prices. A third of US consumer spending is on goods. Supply-chain problems that ranged from too few truck drivers to just-in-time warehousing systems slowed deliveries, leading to empty shelves in December 2021.

The Biden administration blames the lack of competition in the US economy for rising prices amidst record corporate profits. Some economists have urged the Biden administration to remove the tariffs on Chinese goods imposed by President Trump to reduce prices, but President Biden does not want to remove the Trump tariffs without concessions from China. Republicans blame Democratic spending for fueling inflation.

Between 2000 and 2018 the average annual growth in median household income was 0.3 percent a year. However, the wealth of the 745 US billionaires went from $3 trillion to $5 trillion over this period.

California’s minimum wage for employers with 26 or more employees rose to $15 on January 1, 2022. Large farm employers must also pay overtime wages to farm workers after eight hours worked in a day or 40 hours during a week. California sheep farmers must raise the monthly salaries of herders who remain with their flocks 24/7 from $1,955 to $4,286 on January 1, 2022. The state’s 175 sheep farmers employ about 350 H-2A herders from Peru.

The effects of 8/40 overtime on farm employers and workers is uncertain. Before AB 1066 was enacted, there were predictions that three major types of workers would be affected, equipment operators, irrigators, and dairy employees. The relative scarcity of equipment operators to operate expensive machines was expected to lead to more overtime pay, there were expected to be efforts to hire more irrigators to reduce overtime pay, and dairy farmers were expected to automate in order to save on overtime pay.

Most farm workers are employed to tend and harvest crops, and many work eight hours or less a day, especially when engaged in strenuous hand-labor tasks such as harvesting fruit from trees.

Other states are requiring or considering overtime for farm workers, including Washington, New York, Colorado and Massachusetts. There are many questions about how 8/40 overtime has affected California farmers and workers, but little reliable data. USDA’s FLS reported that directly hired farm workers in California averaged 42.6 hours a week in 2018, 43.1 in 2019, 41.5 in 2020, and 41.3 in 2021.
These data are not published by type of farm or worker job title.

US dairies are beginning to embrace the automated milking systems developed by Lely and DeLaval and adopted in Europe over the past quarter century. Free flow automation systems allow cows to choose when to be milked, while guided flow systems allow cows to pass through one-way gates to be fed and milked. The cost of automated milking systems has dropped by 40 percent over the past decade.

The city of Gonzales in the Salinas Valley, which includes many farm workers, had one of the state’s highest vaccination rates in Fall 2021, with 98 percent of eligible residents receiving at least one shot. The city of Salinas had a 90 percent vaccination rate, and Imperial County 85 percent. The cooperation of vegetable growers, local governments and health clinics is credited for the high vaccination rates of residents.

Workers at Constellation’s Simi Winery protested during the annual Harvest Celebration in October 2021, demanding hazard pay when they work during periods of wildfire smoke. The workers say that they earn less than $2,500 a month, and most did not receive federal covid support because they are unauthorized.

Bank of America distributed $111 billion for California’s Employment Development Department in 2020, including at least 10 percent that was lost to fraud as thousands of prepaid debit cards went to prisoners or to fictitious people. Bank of America has a fifth of its branches and a third of its mortgage loan balances in California, and has been issuing UI benefits for EDD via prepaid debit cards since 2010, receiving a fee from merchants when the cards are used.

**FLORIDA, SOUTHEAST**

Privately owned US Sugar, which farms 200,000 acres of sugar cane in southern Florida, offered to buy Texas-based Imperial Sugar for $315 million in March 2021. The US Justice Department opposed the deal, arguing that the result would be too much consolidation in sugar refining in the southeastern states. US Sugar sells refined sugar through United Sugars Corp, a marketing cooperative owned by a handful of producers.

**Georgia**

The federal government’s Operation Blooming Onion charged Maria Leticia Patricio and 23 others with human smuggling and labor trafficking in South Georgia, alleging that they charged fees to the H-2A workers they recruited in Mexico and Northern Triangle countries, required them to pay for housing while in the US, and paid the H-2A workers as little as $0.20 a bucket to harvest onions in southern Georgia.

The 24 defendants, including Charles King of Kings Berry Farms and Stanley McGauley of Hilltop Packing, allegedly received over $200 million from their activities between 2015 and 2021. Patricio and the other defendants were certified by DOL to fill over 71,000 jobs with H-2A workers over seven years. Most of the H-2A applications sought certification to fill 50 to 300 jobs.

Most of those charged with trafficking are former farm workers and supervisors who returned to their communities abroad to recruit H-2A workers. Since they knew what workers earned in the source communities, and what they would earn in the US, they were able to charge workers for H-2A jobs. Two-thirds of the job certifications in FY20 in Georgia went to FLCs.

Rep David Scott (D-GA), chair of the House Ag Committee, called on federal agencies to step up their enforcement of H-2A regulations.

A 24-year old H-2A worker, Miguel Ángel Guzmán, died in June 2018 near Moultrie, Georgia from heatstroke while picking tomatoes at MGI Farms. OSHA fined Beiza Brothers Harvesting $10,300, which was not paid because Beiza went out of business and became a truck driver earning $15 an hour. Beiza paid $150,000 in back wages to 184 H-2A and US workers in 2017.

FLCs are 10 percent of US employers of H-2A workers, account for a quarter of violations found by WHD, and are certified to fill about 45 percent of H-2A jobs.

Guzmán and his fellow H-2A workers paid $700 each to a recruiter in Mexico to cover the cost of travel to the US consulate in Monterrey and another $190 for their H-2A visas. US employers can require H-2A workers to pay their own travel costs to US workplaces, but must reimburse them once the workers arrive. Most US employers pay their H-2A workers’ travel and visa costs.

Beiza paid piece rates for picking tomatoes and urged harvest workers to work fast. Beiza’s supervisor said that he was not trained on how to deal with heatstroke, and quit after Guzmán’s death to work at a lumber company. In July 2018, Beiza bussed the H-2A workers to Racine, Wisconsin, where they worked long hours and were not paid promptly.

Beiza’s H-2A workers went on a short strike in August 2018 at Borzynski Farms, a 7,000-acre operation in several states. Borzynski, who previously used FLCs who violated H-2A regulations, said that Beiza was the sole employer of H-2A workers on its farms in 2018. DOL debarred Beiza from the H-2A program in 2018.
**Midwest, Northeast, Northwest**

**Colorado**

The state Fair Labor Standards Act (SB 87) requires farm workers to be paid at least the state’s minimum wage of $12.56 in 2021, allows farm workers to join or form unions without retaliation, establishes new heat-safety protections, and requires employers to pay farm workers overtime wages of 1.5x the normal wage after 60 hours of work a week. There are no exclusions for small employers or H-2A workers.

All employers, except highly seasonal employers during their peak season, will be required to pay employees overtime wages after they work 48 hours a week in 2025. Highly seasonal employers are defined as those with at least twice as many employees during their peak seasons (up to 22 weeks) compared to the rest of the year.

**Nebraska**

Many of the state’s 93 counties are losing residents as young people move away for education and jobs and there are few new arrivals in farming areas with fewer and larger farms. Nebraska uses high property taxes to fund its schools, and farm land worth several thousand dollars an acre provides much of the state’s property tax revenues.

**New York**

The three-member state Farm Laborers Wage Board delayed a decision on the weekly hours after which farm workers must receive overtime pay; the current requirement is overtime pay after 60 hours a week. The 2019 Farm Laborers Fair Labor Practices Act empowers the Board to require overtime pay after 40 hours a week. A Cornell study of 20 farms warned that New York dairy farms would shrink or exit dairy farming if they were required to pay overtime wages after 40 hours of work a week.

New York’s state minimum wage for upstate areas rose from $12.50 to $13.20 on January 1, 2022.

The New York State Public Employees Relations Board certified the RWDSU/UFCW Local 338 as the representative of 12 workers at Pindar Vineyards in Peconic in September 2021. The workers said that they wanted the union to negotiate overtime pay after 40 hours a week and ensure that their supervisors respected them.

**Pennsylvania**

Kennett Square in southeastern Pennsylvania, the mushroom capital of the world, has 50 mushroom farms. Mushroom seeds or spores are inserted into a compost of mulch, hay and straw that is fed into shelves by machine and covered with a two-inch casing of peat moss and lime.

The mushrooms are ready to harvest in 15 to 20 days. Each shelf is harvested two or three times by workers who use knives to cut ripe mushrooms; about 220 mushrooms fill a 10-pound box. Workers harvest an average 10 boxes an hour, and some work 10 to 12 hours a day to ensure that mushrooms, which can double in size in a day, are harvested. Growers receive about $1 a pound for mushrooms.

Martin Nelson and the Eastern Pennsylvania Mennonite Church were charged with human trafficking in a suit filed in November 2021 by troubled boys who say they were forced to work six days a week and restrained physically on a farm 40 miles northwest of Harrisburg. The Liberty Ridge Farm charged $2,300 a month to serve “troubled” boys with “special spiritual, emotional, and social needs.”

**Maine**

Voters approved a right to a food sovereignty amendment to the state constitution in November 2021 that gives residents a “natural, inherent and unalienable right” to grow, raise, produce and consume food of their own choosing. A state law enacted in 2017 allows farmers to sell directly to consumers as a way to bypass corporate control over the food system, drawing warnings from those who believe that a lack of testing may allow direct-to-consumer sales to increase foodborne illnesses. Montana, Wyoming, Colorado and North Dakota have similar state laws that promise their residents food sovereignty.

**Kentucky**

Some 34 million US adults, a seventh, smoked tobacco in 2018. Most tobacco is grown in the southeastern states and harvested by H-2A workers, who cut the plants, spear five of them into a stick or rod, and hang the rods of leaves in a barn for six weeks for the leaves to dry. Dried leaves are cut from the stems, bundled and sold.

**Louisiana**

Rivet and Sons LLC, a 6,000-acre sugarcane and soybean farm near Baton Rouge, allegedly threatened H-2A workers with firearms after they asked for food and water. DOL obtained a federal injunction in October 2021 prohibiting Glynn Rivet from being near the H-2A workers on the farm.

**Mississippi**

South Africans with H-2A visas are employed on over 100 farms in the Mississippi Delta. Six Black farm workers sued the Pitts Farms Partnership in September 2021, alleging that they were laid off to open jobs for younger white South Africans with H-2A visas. In FY20, Mexicans received 198,000 H-2A
visas and South Africans 5,500. The South Africans are often experienced equipment operators, speak English, and are willing to work long hours.

**Oregon**

Farm worker advocate PCUN wants the state legislature to approve overtime pay for farm workers on an 8/40 basis, ending the farm worker exemption from overtime. A 2021 bill phasing in overtime for farm workers would have provided $100 million to cover 80 percent of grower overtime costs for three years. Willamette Valley Vineyards, which has 45 year-round and 90 seasonal workers, announced that it would begin to pay overtime after 55 hours a week in January 2022 and on an 8/40 basis in 2024.

**Washington**

The Employment Security Department tried to recruit US workers for 2021 harvests in the state, and reportedly referred one worker who was not hired by the farmer to whom he was sent. Ever more farmers are turning to the H-2A program, which requires them to provide housing at no charge to guest workers and to pay the AEWR of $17.41 an hour in 2022.

The Washington Supreme Court decided in November 2020 that the Legislature had no reasonable basis to exclude farm workers from overtime protections in 1959. Since agricultural work is dangerous and exposes workers to risks from physical strain, pesticides and disease, the Supreme Court concluded that the state overtime exemption had racist origins and was unlawful.

Almost all new plantings of apples in Washington involve shallow-rooted trees that are supported by trellises and bear fruit within three years. The cost of replanting a traditional with a trellis orchard can be $50,000 an acre or more, which is one reason why the apple industry is increasingly reliant on pension funds and insurance companies for capital. The Ontario Teachers’ Pension Plan purchased Broetje Orchards in February 2019, paying $288 million for 6,000 acres of land or $48,000 an acre.

Some growers say that outside investors are overpaying for Washington apple orchards, much as California grape growers say investors are overpaying for California vineyards.

Growing apples on trellises means more fruit is exposed to sunlight and develops higher sugar levels. Shallow-rooted trellis trees are stressed with too little water so that they put their energy into making fruit rather than wood, and workers have an easier time picking fruit from two-dimensional trees. Israel-based FFRobotics is developing a harvester that identifies ripe apples and picks them using six arms that snip off each apple.

Washington experienced heavy rain and snow in the mountains that closed roads and limited east-west transportation in January 2022. Many cities in western Washington had the wettest start to the year on record.

**Alaska**

Kodiak Island recorded a record 67 F temperature in December 2021; southern Alaska had record warm temperatures while the Pacific Northwest had record cold temperatures. Many areas of interior Alaska including Fairbanks received record amounts of rainfall in December 2021 that coated roads and promised to leave ice on roads until spring.

Interior Alaska experienced hurricane-strength winds in January 2021 that left many without power in the Matanuska area northeast of Anchorage, the state’s agricultural heartland.

The North Pacific Fishery Management Council, which sets catch limits for 140-plus species within 47 stocks and stock complexes in Alaskan waters that are three to 200 miles offshore, announced in December 2021 that up to 330 million pounds of Pacific Cod, 550 million pounds of yellowfin sole, and 2.4 billion pounds of Bering Sea pollock, can be caught in 2022. About 80 percent of the permits for Alaska fishing go to boats based in Washington, including over 200 based in Seattle.

The Alaska Earthquake Center, which reported more than 49,000 seismic events in the state and nearby regions in 2020, noted that the 8.2 Chignik earthquake of July 28, 2021 off the Alaska peninsula was the strongest in the US in 50 years. On March 27, 1964, Alaska experienced the second-strongest earthquake in world history, a 9.2 earthquake centered about 90 miles east of Anchorage that released twice the energy of the 1906 San Francisco earthquake, which had a magnitude of 7.9.

### ALRB, STRIKES

The ALRB issued five decisions in 2020, and none in 2021. Administrative law judges issued two decisions. In Cinagro Farms, the ALJ concluded that a vegetable harvest crew was unlawfully fired in March 2017 for requesting pay stubs with required deduction information. Cinagro (organic spelled backwards) countered that the crew quit when their FLC Mike’s or Art’s Labor Contractor did not show up to supervise them, even though they had become Cinagro employees.

The ex- Cinagro workers went to work picking blueberries at Silent Springs in March 2017. The ALJ concluded that the crew was fired or not rehired for complaining about
the lack of pay stub information, and ordered Cinagro to rehire the crew with back pay for any lost wages.

In Reitz Ranches, an ALJ found that Reitz unlawfully fired several workers in February 2018 who complained that the pace of work was too fast and they were not provided with gloves to load stumps. The workers were brought to Reitz by FLC AAT Agriculture. Reitz was ordered to reinstate the workers and provide them with back pay to cover any loss of wages.

**Strikes**

Some 10,000 Deere & Company workers went on strike for five weeks in October-November 2021 at 14 facilities in Iowa and Illinois before approving a six-year contract that raises wages by 10 percent immediately and provides bonuses for achieving productivity targets from 15 of earnings to 20 percent. New hires will continue to participate in traditional defined benefit pension plans.

Some 1,400 workers at four Kellogg plants struck for several months before approving a contract in December 2021. Veteran workers earn an average $35 an hour and new hires $22 an hour; a major issue was the starting wage for new hires and how long they should remain at the entry-level wage that was raised to $24. Kellogg threatened to permanently replace the striking workers. Earlier strikes at Frito-Lay and Nabisco were triggered in part by forced overtime, as companies find it hard to recruit workers.

An NLRB ALJ in November 2021 found that Amazon unlawfully interfered with the February-March 2021 vote at its Bessemer, Alabama warehouse by having the USPS install a mail deposit box at the warehouse to collect mail-in ballots. The decision voided the election in which 71 percent of workers voted for no union. The Retail, Wholesale and Department Store Union wants to request a new election in 2022.

Amazon announced a settlement with the NLRB in December 2021 that requires sending over a million past and current employees a notice highlighting their right to organize. Amazon says it respects worker rights but believes its employees are better off without union representation.

Employees of three Starbucks in Buffalo, New York voted in November-December 2021 to have the Starbucks Workers United represent them. Starbucks has 9,000 company-owned US stores and 6,500 franchised stores, some of which are unionized. The Buffalo stores are the first corporate-owned store to vote for union representation. Starbucks said that all of its US employees or partners will earn at least $15 an hour by mid-2022.

**IMMIGRATION**

**CONGRESS: BBB, REFORM**

Congress approved the Infrastructure Investment and Jobs Act in November 2021 to provide $1 trillion in federal funds to improve roads, bridges and other “hard” infrastructure. The House approved HR 5376, the Build Back Better Act, on a 220-213 vote in November 2021, but the Senate failed to act. The BBB would spend $1.8 trillion (originally $3.5 trillion) on pre-K education, child care, green energy, and other “soft” human development programs.

The BBB includes $400 billion for universal preschool for children who are three and four years old, a cap on child care costs of seven percent of parental income, and $555 billion to promote clean energy and electric vehicles. The child tax credit, which provides $250 per month per child ($300 for children under six) would provide monthly payments to 90 percent of the 74 million US children under 18 rather than the once-a-year Earned Income Tax Credit that is currently paid to the parents of low earnings after they file income tax returns.

Measures dropped from the BBB included paid family leave, carrots and sticks for utilities to expand their production of renewable energy, and vision, dental and hearing benefits for Medicare recipients. BBB benefits would be paid for by higher taxes on businesses and wealthy individuals.

Most of the debate over the BBB, which originally included immigration reforms, was within the Democratic party. Progressives want to expand the role of the federal government in more areas of society, while moderates wanted to spend less on fewer targeted programs. Progressives won the debate in the House, and held down the cost of the BBB by funding many BBB programs for only a year or two. Republicans say that the cost of the BBB over a decade would be $5 trillion, or more than the cost of WWII in 2021 dollars.

The debate over the BBB was influenced by rising inflation, which rose at a seven percent annual rate in Fall 2021 and prompted fears that BBB spending might accelerate inflation by increasing the demand for goods and services. Republicans hope to win a majority in Congress in November 2022 elections by focusing on the three I’s of inflation, immigration and identity politics.

Media reports highlighted items in the BBB aimed at particular constituencies, from reinstating the ability of high-income earners to deduct more than $10,000 in state and local property taxes from their
Agricultural and Resource Economics

immigration

Democrats want to enact the BBB in the Senate via reconciliation, which requires only a majority vote. The Senate parliamentarian three times rejected plans to include proposals to legalize unauthorized foreigners as not sufficiently germane to budget issues to be included in the BBB.

The December 2021 rejection involved a plan to grant parole, a five-year temporary legal status, to seven million unauthorized foreigners in the US before 2011 by moving the registry date from 1972 to 2010. Holders of the five-year work and residence permits would have been able to travel in and out of the US, but they would not have had access to federal means-tested benefits.

The Senate parliamentarian also rejected a proposal to recapture unused visas. Some nine million foreigners apply for the one million immigrant visas available each year, but per-country quotas can mean long waits for visas for applicants from countries such as India, even as some of the visas in particular categories go unused.

Democrats in 2020 promised a path to citizenship for almost all of the 11 million unauthorized foreigners in the US. Tensions emerged in 2021 between idealistic Democrats who want to legalize unauthorized foreigners in the US and pragmatic Democrats who want to avoid a new upsurge of unauthorized migrants.

Migrant advocates blamed Biden for not ending Title 42 expulsions of unauthorized border crossers, while restrictionists complained that many of the Central Americans who enter the US illegally and apply for asylum will be allowed to stay even if they do not qualify for refugee status. A record 146,925 foreign children under 18 entered the US in FY21.

The Immigration Reform and Control Act of 1986 was a bipartisan effort led by Democrats in the House and Republicans in the Senate and signed into law by President Reagan. Comprehensive immigration reform proposals approved by the Senate in 2006 and 2013 were also bipartisan, but more recent proposals to deal with unauthorized migration are introduced by only or mostly Democrats or Republicans.

The question at the heart of IRCA, and bedeviling current immigration reform proposals, is how to legalize unauthorized foreigners who are in the US and prevent another accumulation of millions more unauthorized foreigners. Democrats increasingly favor legalization without more enforcement, while Republicans often favor more enforcement with limited legalization.

DHS: BORDER, HAITIANS, SEPARATIONS

DHS in fall 2021 signaled a return to policies that aim to prevent unauthorized entries at the Mexico-US border while relaxing interior enforcement. DHS has maintained Title 42 turnarounds of most solo adult foreigners encountered at the border for public health reasons, even though US borders were reopened to vaccinated travelers arriving via land ports on November 8, 2021. Title 42 allows most solo adults to be returned quickly to Mexico.

A federal judge in June 2021 ordered DHS to restart the Migration Protection Protocols that were first implemented in January 2019. The MPP requires asylum seekers to wait in Mexico until an immigration judge can hear their case.

DHS issued memos that changed internal enforcement priorities to focus on foreigners who commit US crimes or are terrorist threats and employers who exploit unauthorized workers. Under the Bush and Trump administrations, there were workplace raids that resulted in the arrest of large numbers of unauthorized workers but imposed few penalties on their employers. The Obama and Biden administrations aim to target abusive employers while protecting unauthorized workers who complain about such employers.

CBP

A record 1.7 million foreigners were apprehended at the Mexico-US border in FY21, including 655,000 Mexicans, 309,000 Hondurans, 279,000 Guatemalans, 96,000 Salvadorans, and 367,000 other foreigners, including Haitians, Venezuelans, Ecuadorans, Cubans, Brazilians. Almost 44 percent of those apprehended were from Northern Triangle countries. Mexicans typically pay at least $8,000, and Northern Triangle citizens at least $10,000, to be smuggled into the US.

Apprehensions include persons encountered between ports of entry and those detected at ports of entry using false documents or concealed in vehicles. About 400,000 foreigners were apprehended in FY20, and between FY12 and FY20, apprehensions averaged 540,000 a year. The FY21 total is three times this average. The previous record was 1.6 million apprehensions in FY00.

Over 64 percent of those apprehended in FY21 were solo adults, 28 percent were adults with children, and eight percent were
unaccompanied children under 18. Some 61 percent of all persons apprehended were returned to Mexico under Title 42 of the Public Health Act, which allows the CBP to prevent the entry of foreigners to limit the spread of covid. A quarter of the families were expelled under Title 42, but none of the unaccompanied children.

Between March 2020 and October 2021, some 1.3 million of the two million migrants who were encountered were returned to Mexico under Title 42. Since February 2021, unaccompanied children who are apprehended just inside the US are placed into shelters. A quarter of foreigners who arrived in family units were returned under Title 42, as were 84 percent of the 1.1 million adults apprehended. Foreigners can be returned under Title 42 within 15 minutes of being processed.

Countries including Brazil, Cuba, Nicaragua and Venezuela do not accept the involuntary return of their citizens, which means that citizens of these countries are often allowed to enter the US. However, under Remain in Mexico, some asylum seekers from these countries may have to wait in Mexico.

Foreigners returned to Mexico often try to re-enter the US. During the summer of 2020, when apprehensions exceeded 200,000 a month, 25 percent of the foreigners encountered were recidivists, meaning they had been apprehended at least once within the previous year.

Most of the migrants entering the US illegally and applying for asylum are relatively poor, but some are middle class Brazilians and Venezuelans who fly to Mexican border cities, take taxis to the Mexico-US border, and request asylum. If admitted to the US, they fly to US relatives to await a court date for their asylum hearing. Mexico permits citizens of many South American countries to arrive without visas and often refuses to accept the return of non-Mexicans apprehended in the US.

Haitians

Some 30,000 Haitians arrived in Del Rio, Texas in September 2021, including many who moved from Brazil and Chile, countries that welcomed Haitians who were displaced after a 2010 earthquake in Haiti that killed over 200,000 people.

The US granted temporary protected status to Haitians who were in the US by July 29, 2021, including some who had just crossed the border and were scheduled to be deported to Haiti.

Many of the Haitians in South America who moved north heard this news and assumed that they too would be granted TPS once they entered the US.

To stop the influx of Haitians, some 8,500 Haitians were deported to Haiti on over 80 flights, prompting other Haitians to return to Mexico; perhaps 8,000 Haitians were admitted to the US. The US government explored returning the Haitians who were admitted and do not qualify for asylum back to Brazil and Chile, countries that Haitians left for the US because they believed there was more opportunity in the US.

More Haitians are reported to be en route to the US in fall 2021; some 1,100 were apprehended in October 2021, down from almost 18,000 in September 2021. Many Haitians apply for asylum in southern Mexico so that they can travel freely to the US border.

The US has an uneven record of intervention in Haiti. After Jean-Bertrand Aristide was deposed in a military coup in 1981, Haiti descended into gang violence and migrants set out in boats for the US, prompting the US to intervene in 1984 and restore Aristide to power. In the 1990s, there were more problems and more migration that ended with the resignation of Aristide in 2004.

Despite $5 billion in US aid over the last decade, Haiti remains the poorest country in the Western Hemisphere and has few prospects for growth. The US controlled Haiti’s finances for most of the first half of the 20th century, and the US supported the father and son dictators François and Jean-Claude Duvalier in the 1960s and 1970s as bulwarks against communism in Cuba. Aristede was elected to replace Duvalier.

Venezuelans

Some six million Venezuelans left their country over the past decade. Most went to neighboring Colombia and Brazil, but a rising number are attempting to enter the US via Mexico. Over 13,400 Venezuelans were apprehended in January 2021 including some, as with Haitians, who were settled in Colombia but wanted more opportunities in the US.

The US government does not recognize the Maduro regime in Venezuela, making it hard to deport Venezuelans. Venezuelans do not need visas to enter Mexico, so many fly from Colombia to Mexican border cities and walk into the US. The US, which granted TPS to an estimated 323,000 unauthorized Venezuelans who were in the US by March 8, 2021, wants to return those who enter the US from Mexico to Colombia and other countries where they were settled.

Separations

In May-June 2018, some 5,500 children were separated from their parents after illegally entering the US, including 3,000 in May-June 2018. The policy was stopped after an outcry, and the ACLU sued on
behalf of some of those who were separated, asking for payments and immigrant visas for parents and children who were separated.

In October 2021, the Biden administration discussed paying each person in separated families up to $450,000 to settle the ACLU suits. President Biden rejected this sum as too high because a mother with two children would receive almost $1.4 million and total payments could exceed $1 billion. Republicans emphasized that the families that were separated entered the US illegally and have introduced bills to block payments to them.

Immigration advocates say that Biden’s approach to resolving family separation cases reflects his failure to fulfill campaign promises and reverse Trump’s migration policies. Biden reversed the ban on travelers from some Muslim-majority countries, ordered an end to the use of terms such as “illegal alien,” and reduced the enforcement of immigration laws inside the US. However, many migrants encountered at the border are returned to Mexico under Title 42 of the Public Health Act despite widespread US vaccinations.

Texas is supplementing CBP efforts by using state and local police to detect and arrest unauthorized foreigners for trespassing on private land in several border-area counties. Operation Lone Star led to the arrest of at least 2,000 migrants in 2021, most of whom are processed in Del Rip and tried for trespassing, sentenced, and then turned over to ICE. State judges are releasing many of those awaiting trial and, because they are inside Texas, they are not expelled under Title 42.

ICE

The enforcement of immigration laws inside the US declined in FY20. ICE’s 6,000-agent Enforcement and Removal Operations agency made 72,000 administrative arrests in FY21, about half of the average 148,000 a year between FY17 and FY19. ERO arrests peaked at over 322,000 in FY11.

DHS ended large workplace raids in October 2021, instead focusing on “unscrupulous employers who exploit unauthorized workers, conduct illegal activities or impose unsafe working conditions.” Under the new worksite enforcement policy, ICE will explore with USCIS ways to protect workers who report exploitative employers, including offering them work permits and determining whether employers use E-Verify to retaliate against workers who complain about their employers.

In September 2021, DHS announced that interior enforcement would focus on foreigners convicted of US crimes, those who threaten public security, and recent border crossers. ICE began 4,000 worksite investigations in 2020, typically audits of I-9 forms completed by newly hired workers and their employers.

USCIS

The US had an estimated 46 million foreign-born residents at the end of 2021, making them 14.2 percent of US residents. The Census projects that the US will have 54 million foreign-born residents in 2030, when they will be 15 percent of US residents, and 65 million and 17 percent in 2050.

There was an initial drop in foreign-born residents after covid lockdowns in March 2020, but a rebound in 2021. The foreign-born population was stable at about 45 million in 2018 and 2019.

DOS reported that the total number of visas issued dropped from 8.7 million in FY19 to four million in FY20, including a drop from 619,000 to 468,000 H-visas for workers and their dependents. The number of F-student visas dropped from 389,000 to 121,000.

Immigration judges granted some type of legal status to half of the one million applicants for asylum between FY01 and FY21; there were 670,000 asylum cases pending at the end of FY21. USCIS asylum officers may also grant asylum and, considering their grants, 64 percent of the 1.3 million completed asylum cases over the past two decades resulted in foreigners being allowed to remain in the US legally.

H-2A; H-2B

DOL certified 317,619 farm jobs to be filled by H-2A workers in FY21, up 15 percent from 275,430 in FY20. About 80 percent of jobs certified result in the issuance of visas; 258,000 H-2A visas were issued to foreigners filling seasonal jobs on US farms in FY21. Over 90 percent of H-2A visas go to Mexicans, who are in the US an average six months. The almost 130,000 full-time equivalent H-2A workers are 12 percent of the 1.1 million full-time equivalent jobs in US crop agriculture.

AEWRs for 2022 range from $12 an hour in the southeastern states to $17.51 in California, and the AEWR for sheepherders is $1,807 a month, and higher in some states. Florida and the southeast had small increases in the AEWR between 2020 and 2021 of less than $0.50 an hour or four percent, while the Northeast II states of New Jersey and Pennsylvania, and California, Oregon, and Washington, had increases of about $1.50 an hour or nine percent.

The Keep Food Local & Affordable Act of 2021 would have frozen AEWRs at their 2021 levels in states with unemployment rates below five percent, and allowed governors of states where food prices rose
more than three percent in the last 12 months to freeze AEWRs at 2021 levels in their states. AB-857, introduced in February 2021 on behalf of the California Rural Legal Assistance Foundation, would have required H-2A workers arriving in California to receive brochures outlining their rights under federal and state laws. AB-857 was not enacted, but the CRLAF argues that H-2A workers are tenants in their temporary housing and thus have the right to invite guests to visit them. The CRLAF argues that H-2A workers should be compensated for travel time between this housing and the fields.

In a November 2021 decision, the Ninth Circuit Court of Appeals ruled that arbitration agreements between H-2A workers and their employers are binding. A Mexican H-2A worker employed by Elkhorn Packing in 2016 and 2017 sued for unpaid wages, Elkhorn pointed to the arbitration agreement, and a lower court agreed that H-2A workers were dependent on their US employers and thus could not be forced to arbitrate employment disputes. The Ninth Circuit reversed this decision, which is likely to prompt most employers of H-2A workers to include arbitration clauses in their job offers.

**Misclassification**

As the H-2A program expands, more cases of employers lying to DOL about the jobs their H-2A employees perform are surfacing. Some farm employers hire H-2A workers to fill nonfarm jobs and pay them the AEWR rather than the higher prevailing wage for the job. In most states, farm workers do not receive overtime pay, which is a second source of savings for employers who consider their employees to be farm workers. The best-known examples of misclassification include truck drivers, who may be called agricultural equipment operators, and construction workers, who may be called crop or animal support workers when they build buildings on farms.

H-2A truck drivers employed by a farm operator who convey produce from fields to farm-owned packing and processing facilities are considered to be farm workers, but drivers employed by nonfarm trucking farms who move produce from many farms over public roads to commercial packing and processing plants are usually nonfarm workers. If their jobs are seasonal, such drivers can be hired under the H-2B program and paid the prevailing wage and overtime wages.

The line between agricultural equipment operator and commercial truck driver is especially blurry in the case of custom combining crews that harvest wheat and other grains from Texas to Canada. These custom harvesters move from farm to farm and haul the harvested grain over public roads to on- or off-farm storage facilities at the AEWR for crop and livestock workers. Drivers are often called equipment operators and paid the AEWR rather than the prevailing wage for commercial truck drivers, which can be $25 an hour.

DOL recognized employer misclassification of farm jobs in July 26, 2019 proposed rulemaking that would have set AEWRs by job title rather than the current practice of establishing one AEWR per state based on the average hourly earnings of crop and livestock workers. USDA began to collect and report data by job title when it expanded the FLS sample from 12,000 to 35,000 farms in 2019, and DOL proposed to use FLS data to establish AEWRs by job title in states and regions where the FLS data were available. In other states and regions, DOL proposed to use DOL’s OES to set AEWRs at the mean prevailing wages. Under the DOL proposal, AEWRs for truck drivers, construction workers and mechanics would have risen, often doubling.

The proposal to set AEWRs by job title is included in the pending FWMA immigration reform and was re-proposed by DOL on December 1, 2021.

No one knows how many US employers are taking advantage of the lower AEWR and no overtime requirements to hire nonfarm workers at farm wage rates. The affected workers may not understand the differences between farm and nonfarm jobs and wages, and employers may feel vindicated if OFLC certifies them to hire “farm workers” year-after-year.

DOL’s WHD investigated some trucking, construction and other firms that employ H-2A workers and ordered offenders to pay back wages to their H-2A employees that reflect the difference between prevailing wages and the AEWR. Such investigations are likely the tip of an iceberg and may expand as the H-2A program grows.

For example, some Texas fence erecting firms are certified to hire sheep shearsers, but use their H-2A employees to construct fencing, a specialty construction trade where prevailing wages are significantly higher than the AEWR. In the few cases that have been litigated, the maintenance of fences while tending cattle and sheep is considered to be farm work, but the construction of fences is considered to be nonfarm work.

**H-2A Reform**

The fact that few jobless local workers filled seasonal farm jobs despite high unemployment rates in 2020 and 2021 suggests that many and perhaps most of the seasonal hand workers of tomorrow
are growing up today somewhere outside the country. As the H-2A program expands, three changes could benefit employers and workers.

First, after one or two years in the program, approved employers and returning migrant workers could receive multi-year certification and multi-year visas so that both farm employers and migrant workers could plan for employment year-to-year. Farm employers would self-certify their need for workers and their housing, changing only the wage rate, number of workers, and start and stop dates. Workers could leave for jobs abroad from nearer their homes rather than from consulates that issue H-2A visas. Workers would enter the US with a certified job offer from their previous-year’s employer that includes contact info so that CBP could contact the employer to ensure the job offer is valid.

Longer-term certification would provide more certainty for employers and give workers an incentive to learn English and undergo training to improve their productivity and earnings.

Second, H-2A expansion justifies new business models, such as organizing crews of workers in sending countries that arrive with supervisors, drivers, cooks and other support personnel, turning labor migration into a turn-key operation. Custom combining of grain provides an example. Canadian-based firms bring equipment, operators, drivers and mechanics into the midwestern states and harvest wheat and other grains from south to north. Being able to use the equipment longer justifies the purchase of modern equipment and maximizes the seasonal earnings of workers.

Extending this turn-key crew approach to hand-harvested commodities could mean recruiting and training crews in sending countries so that they arrive experienced and ready to work, although only workers rather than workers and equipment might cross the border. A crew-based approach could take advantage of migrant networks to maintain efficient workforces, recruiting additional workers and training them in the country of origin.

Third is fixing recruitment in sending countries. The major issue is an excess supply of workers seeking higher wage jobs abroad, which allows recruiters to charge workers for access to these jobs. The ILO and many national governments oblige employers to pay all or most costs for migrant workers, but policing this employer-pays-all-costs requirement is very difficult.

Rather than subsidizing government agencies to create work-ready pools from which employers select individual workers, a better approach may be to subsidize multinational staffing firms with reputations to protect to recruit and train crews of workers, thereby achieving economies of scale and reducing corruption in recruitment.

The net effect of multi-year certification and visas, crews, and fewer and larger recruiters would be to transform farm labor recruitment from a business of small firms each recruiting and deploying less than 100 workers to larger firms that develop procedures to comply with labor laws and regulations and achieve economies of scale. Crew-based multi-year arrangements organized by multinationals could generate win-win outcomes for employers and workers.

**Northern Triangle**

The US government wants to increase the number of Hondurans, Guatemalans and Salvadorans who receive H-2A and H-2B visas. USAID provides funds to NGOs that help government agencies recruit and screen workers, with successful applicants placed in work-ready pools from which US employers select workers. The assumption behind work-ready pools is that US employers do not know how to find capable Northern Triangle workers.

Many US employers, on the other hand, are reluctant to recruit from work-ready pools, suggesting that there may be a demand rather than a supply problem. The workers who respond to internet and other ads that highlight high US wages are often urban residents without farm work experience, not the rural residents with farm work experience desired by US employers. Few Northern Triangle workers have experience with US commodities and working methods, but those with farm work experience at home are most likely to become productive US workers.

There are work-ready pools of migrants in many countries who were recruited honestly but who were never offered jobs by foreign employers. Some migrant advocates want to issue work permits to migrants in work-ready pools that allow them to enter the US and work for any employer in a particular industry, occupation, and area.

**H-2B**

The H-2B program allows US employers to hire up to 66,000 foreigners a year to fill seasonal nonfarm jobs. Employers apply for far more, and H-2B visas are distributed by lottery in two tranches, 33,000 for winter jobs and 33,000 for summer jobs.

In December 2021, DHS announced that an additional 20,000 H-2B visas would be available for the winter season, bringing the total to 53,000 and creating expectations that another 20,000 tranche would be added for the summer season,
which would mean up to 106,000 H-2A visas in FY22. A third of the additional H-2A visas are reserved for citizens of Northern Triangle countries.

**Canada, Mexico**

President Biden met PM Trudeau of Canada and President AMLO of Mexico in November 2021, resuming the annual Three Amigos meeting after a five-year break. Canada complained that limiting the proposed $12,500 full tax credit in the BBB for buying electric vehicles to those that are made with US batteries and US union labor violated the USMCA. Mexico resisted US complaints about AMLO’s policies that favor state-owned energy and electricity firms.

Migration may be the most contentious Mexico-US issue. Both countries are dealing with Central American migrants. Mexico can facilitate or block the flow of Central Americans who arrive in the south and want to transit Mexico to the US border. By cooperating to manage migration, Mexico likely limits criticism of AMLO’s anti-democratic policies that include attacking critical journalists, professors and NGOs.

**Canada**

The government plans to admit 400,000 immigrants a year over the next three years, which would increase the country’s population by over one percent a year via immigration.

Atlantic Canada includes four poorer provinces and 2.5 million people that often send young people to richer provinces further west for opportunity. So-called “come from awayers” have moved to Newfoundland during the covid pandemic for low living costs, and are generally welcomed as stabilizing the population even as their arrival pushes up housing prices.

In the first decision by a dispute resolution panel under the USMCA, Canada’s use of a tariff-rate quota system to limit US dairy imports was deemed unlawful. Canada has about 11,000 dairy farms, many in rural Quebec, and uses a supply management system to ensure that higher cost Canadian milk is sold before imports.

**Mexico**

The government reported that an average 4,000 migrants entered Mexico from Guatemala every day in 2021. Most were from El Salvador, Guatemala, Haiti and Honduras, and most wanted to transit Mexico to apply for asylum in the US. The National Immigration Institute (INM) has tried to keep migrants who are headed to the US in the city of Tapachula, Chiapas.

A tractor-trailer truck carrying 150 migrants in Chiapas overturned in December 2021, killing at least 55 migrants. Authorities said that smuggling networks charge 60,000 pesos ($2,900) to transport migrants from the Guatemala-Mexico border to the Mexico-US border, often using stolen trucks that are painted with well-known company logos in order to avoid detection as they pass through Mexico.

Refugee agency COMAR received 50,000 asylum applications from Haitians in 2021, more than the total number of asylum applications that Mexico received from all countries in 2020. Some 6,000 Haitians applied for asylum in Mexico in 2020.

**Wages**

Mexico’s CONASAM agency announced that the minimum wage would increase to 173 pesos ($8) a day in 2022, and 260 pesos ($12) a day in border areas. Mexico’s minimum wage rose 16 percent in 2019, 20 percent in 2020, 15 percent in 2021, and 22 percent in 2022.

CONASAM said that the 22 percent increase was the most since 1987, and will restore the purchasing power of the six million workers who earn the minimum wage to what it was in 1985. Most workers earn more than the minimum wage, typically $2 to $3 an hour in manufacturing and export agriculture. Mexico had 20.6 million formal sector jobs registered with the social security system IMSS at the end of 2021, up almost 850,000 from the end of 2021.

Economists debated the impacts of Mexican minimum wage increases. AMLO supporters say that minimum wage increases increase consumption among low earners, boosting employment without increasing inflation. However, other studies find that the minimum wage increases accelerated inflation, especially in the border areas where the wage increase was largest. This inflationary effect was offset in part by a reduction in the value-added tax.

**Poverty**

Mexico’s 15 poorest municipalities are places where over 99 percent of residents are poor; most are in the southern states of Oaxaca (eight) and Chiapas (six). Coneval’s poverty threshold is 3,898 pesos (US $187) a month in urban areas in 2021 and 2,762 pesos (US $133) in rural areas.

Coneval defines poverty as having an income below the urban or rural income level and at least one of six social deficiencies such as poor access to adequate nutrition, housing and healthcare. Extreme poverty is an income below 1,850 pesos a month in urban areas and 1,457 pesos in rural areas and at least three social deficiencies.
Coneval reported that the richest municipalities were in northern Mexico states such as Nuevo Leon, where the level of human development is comparable to that in Europe.

The US blocked fresh tomato imports from Agropecuarios Tom (San Luis Potosí) and Horticola Tom (Michoacán) in October 2021 after identifying at least five of the 11 ILO indicators of forced labor among workers at these farms, including deception, withholding of wages, debt bondage, and abusive working and living conditions. The farms, which employ 600 workers, were investigated by Mexican labor authorities in October 2020, resulting in back wages paid to some workers. The Mexican government promised to revisit the farms after the CBP blocked imports from them.

**Haiti**

Conditions in Haiti deteriorated in fall 2021 as competing gangs took control of various elements of critical infrastructure such as fuel delivery. Kidnapping became rampant, including the abduction of 16 American missionaries for whom a ransom of $1 million each was demanded. Police are unable to control the gangs, who often have more and better weapons than the police because of their connections to corrupt government officials.

Crime and the deteriorating economy prompted more Haitians to attempt to leave by sea for the Bahamas and other nearby islands, paying $250 for spots on fishing boats. Those intercepted at sea and returned to Haiti say they will try again. Haiti shares a land border with the Dominican Republic, which guards the border and conducts raids to detect and deport unauthorized Haitians.

Hurricane Maria exposed the vulnerability of the electrical grid in September 2017, exposing neglect and corruption at the Puerto Rico Electric Power Authority (PREPA) that generated and distributed power. The transmission and distribution system was privatized to LUMA, but bankrupt PREPA continues to generate power from plants that are frequently off line.

Mastronardi Produce, a leader in controlled environment ag (CEA), in December 2021 agreed to help Agropark Panama to produced tomatoes and other vegetables indoors for export.

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**EUROPE, ASIA**

**Belarus**

Thousands of migrants from Middle Eastern countries were camped on the Belarus-Poland border in November 2021, drawing protests from Polish and EU leaders who accused Belarus President Aleksandr Lukashenko of inviting migrants to fly to Minsk, guiding them to the Polish border and providing them with wire cutters to cut fencing on the Belarus-Polish border and enter the 27-nation EU.

The EU imposed sanctions on Lukashenko after he won re-election in a disputed election in 2020; the EU charged that Lukashenko “weaponized” migrants in retaliation for these sanctions. Frustrated migrants who expected to be welcomed into the EU threw stones at Polish border guards, who used water cannons to drive them away from the border.

Belarus issues tourist visas to Iraqis, Afghans and others who buy one-way tickets to Minsk. Poland closed its 250-mile border with Belarus, barred journalists from border areas, and rejected offers of EU asylum officers to screen migrants for fear of creating a magnet that would draw more migrants to Belarus.

EU nations reopened even as Covid cases surged in Fall 2021 and Winter 2022. Most countries require
people using public transport or entering restaurants to provide proof of vaccination or recovery from covid. Politicians and doctors urged more people to receive vaccinations in order to reach herd immunity, which most experts put at 80 percent or more of residents.

In November 2021, European nations with less than 10 percent of the world’s people accounted for over half of the world’s covid cases and deaths. Two-thirds of EU residents were fully vaccinated in November 2021, compared with 58 percent of Americans.

The omicron variant, more transmissible than delta and other variants, was detected in Botswana in November 2021 and prompted bans on flights from southern African countries. Some African countries complained that richer countries were slow to share vaccines with them, and then penalized countries that could not vaccinate their populations with flight bans. A tenth of Africans, including a third of South Africans, had at least one dose of vaccine in fall 2021.

The Italian government in October 2021 mandated that all employees be vaccinated or test negative in order to work; employees must show green passes to access workplaces. With two-thirds of adults vaccinated, Austria in November 2021 ordered residents 12 and older who were not vaccinated to remain at home except for essential outside activities.

France resisted pressures to tighten restrictions on public gatherings even as the case count surpassed 200,000 a day at the end of December 2021 despite 90 percent of residents 12 and older being vaccinated. A health pass introduced in August 2021 restricts entrance to many restaurants and other public places to those who have a health pass indicating that they are vaccinated.

Germany tightened restrictions on unvaccinated adults in December 2021, restricting their access to non-essential public venues such as shopping centers and sports stadiums. With over 70 percent of adults fully vaccinated, the new SPD-Green-FDP government may introduce a vaccine mandate for all residents.

The British government lifted most covid restrictions in July 2021, and by November 2021 was experiencing about 40,000 covid cases and 150 covid deaths a day. With omicron, daily cases topped 100,000 a day. The question was whether the UK had reached herd immunity, meaning that so many people recovered from covid or were vaccinated that the disease could no longer spread.

France

Many migrants in France would like to apply for asylum in the UK. After a migrant camp in Calais was dismantled in 2016, more migrants began to cross the 22-mile wide English Channel in inflatable boats. Some 47,000 attempted migrant crossings were detected in the first 11 months of 2021, and 7,800 migrants who were saved from ship wrecks; 27 died when their boat capsized in November 2021.

France says that Britain’s flexible labor market draws migrants from the continent. Britain counters that, if France agreed to accept the return of migrants who reach the UK by boat, most would not try to cross the channel. Many migrants say that the use of English and the settled relatives draws them to the UK.

The UK received over 29,000 first asylum applications in 2020, compared with 82,000 in France, 102,000 in Germany, and 86,000 in Spain. EU countries grant asylum to about 40 percent of applicants, compared with a 55 percent approval rate in the UK. Almost all rejections in the UK are appealed, and a third of these appeals succeed, so that 70 percent of asylum seekers remain in the UK.

French voters go to the polls in April 2022 to decide whether to give President Emanuel Macron a second term. During the last presidential elections in 2017, Macron’s main opponent was Marine Le Pen; in 2022, Trump-style candidate Éric Zemmour and his Reconquête (Reconquest) party will join Le Pen and the National Front as rightist candidates and parties. Zemmour opposes Muslim immigration, arguing that French elites want to replace Christian French people with Muslims. Zemmour attracts more support than Le Pen from educated young people.

At least 10 percent of the 60 million French residents are Muslim. Zemmour and Le Pen are expected to receive at least a third of the vote combined by asserting that “immigration equals Islam equals insecurity.”

Germany

A new SPD-Green-FDP coalition led by the SPD’s Olaf Scholz replaced the CDU-SPD government led by the CDU’s Angela Merkel in December 2021, launching a post-Merkel era focused on reducing inequality and slowing climate change. Merkel guided the EU through 16 years of multiple crises. However, her decision to allow the entry of a million foreigners seeking asylum in 2015 fueled the rise of the AfD, an anti-migrant party.

Scholz is continuing many of Merkel’s policies, albeit with more attention to the needs of working class voters, imitating President Biden’s strategy in the US. Scholz argued that the meritocracies that allow educated elites to justify
their social and economic status and to blame those left behind for not trying hard enough generates working class resentment and a populist backlash. The SPD-Green-FDP coalition promised to raise the minimum wage by 25 percent, from €9.60 to €12 ($13.50) per hour, directly affecting 10 million workers.

The new German parliament has its first Black member, an Eritrean-born Green MP from Kassel. Cem Özdemir, a Green MP born in Germany to Turkish guest worker parents, is the agriculture minister in the new government.

Germany has the world’s largest current account surplus, over seven percent of GDP, while the US has the largest deficit of almost four percent of GDP. China, Germany, and Japan export goods that are worth more than the goods they import; the US urges these countries to increase consumption at home to reduce their trade surpluses. Germany’s savings are growing relative to the rest of the world, while the US is accumulating debt to the rest of the world.

The $11 billion Nord Stream 2 pipeline would bring natural gas from Russia directly to Germany under the Baltic, bypassing Ukraine. With natural gas prices rising, there is pressure in Germany to start gas flowing. Critics worry that Ukraine will lose the transit fees it now collects on Russian gas that transits west via its land pipelines while Russia gains leverage over Germany. Businesses in southern Germany, where wind energy is scarce, want Nord Stream 2 to go online soon to provide insurance of sufficient energy.

**Greece**

Pope Francis called attention to asylum seekers on the Greek island of Lesbos in December 2021. Most of the migrants on Lesbos used small boats to travel from Turkey’s west coast to Lesbos in order to enter the EU, which offers more support and opportunities to begin anew.

**Hungary**

The European Court of Justice is expected to decide in 2022 whether the EU can make funds for member states contingent on their adherence to core EU values. Some EU member states want to reduce or block EU assistance to Hungary, which PM Viktor Orban calls an “illiberal state.”

The European Commission has normally stayed out of the internal affairs of member states because the European Council of national leaders avoids interference in the internal affairs of member states. Orban took a hard line against the migrants who transited Greece en route to Germany and Sweden in 2016, and enacted a raft of laws that limit individual and press freedom in Hungary.

The Commission and Parliament moved against Hungary and Poland in 2017 and 2018, but Article 7 of the Lisbon Treaty, which can suspend a country’s voting rights, must receive unanimous support, which has been lacking.

**OECD**

In its annual report on migration, the OECD noted that governments in Australia and Canada are planning to accept record numbers of immigrants in 2022 to compensate for fewer admissions during covid in 2020 and 2021. Other OECD countries are making it easier for skilled foreigners to enter and work, reducing bureaucracy for employers and migrants, and allowing more temporary workers to earn an immigrant status.

**Russia**

Tensions between NATO and Russia increased in 2021 as Russian troops massed on the Russian border with Ukraine, where Ukrainian separatists aligned with Russia control the region of Donbas in eastern Ukraine. Russia annexed Ukraine’s Crimea peninsula in March 2014 despite NATO warnings.

If Russia invades Donbas, many leaders want Germany to block the opening of the Nord Stream 2 natural gas pipeline, which brings gas from Russia to Germany. Some analysts believe that a failure to confront Russia over Ukraine would encourage China to invade Taiwan.

**Spain**

A canal completed in 1979 brings water from the 626-mile long Tagus river to the southeastern province of Murcia, which has become a center of fresh vegetable production; the Tagus empties into the Atlantic at Lisbon. Nitrate runoff from farm fields generates algae blooms in the Mar Menor lagoon that kill fish and disrupt tourism, setting up a dispute between the agriculture and tourism sectors.

**Sweden**

Swedish rap star Einar was killed in October 2021 in a rich part of Stockholm, raising questions about gun violence, immigration and gang warfare that previously focused on outer suburbs such as Rinkeby that are dominated by migrants. PM Magdalena Andersson in November 2021 assailed the growing influence of gangs.

Analyses find that 85 percent of those arrested for gun crimes since 2017 were born abroad or had a parent who was born abroad, and 70 percent were from families with low incomes. Some of Sweden’s gun crime is linked to turf wars between two prominent gangs, Shottaz and Death Patrol.

**Turkey**

The lira fell sharply as President Recep Tayyip Erdogan insisted on low interest rates even as the
inflation topped 50 percent and the trade deficit widened. Turkish banks have limited foreign currency assets and, with 80 percent of Turkish bank deposits in foreign currencies, some banks could fail if depositors insist on withdrawing dollars or euros.

The lira, which was six to $1 in 2020, depreciated to 15 to $1 in December 2021, increasing the cost of imports, slowing investment and raising unemployment and inflation.

Turkey has been on a debt-fueled growth binge for most of the time since 2003 that Erdogan has been in power. Poverty fell as the government and private investors built infrastructure and factories. However, a drop in tourism due to covid and Erdogan’s failure to raise interest rates as inflation rose prompted Turks and others to sell lira, which aggravated inflation and the devaluation of the lira. Erdogan cites Islamic rulings against interest to justify low interest rates.

**Afghanistan**
The UN’s Office on Drugs and Crime estimated that Afghanistan’s 224,000 hectares of poppies produced over 80 percent of the world’s opium in 2021; opium latex is used to make heroin. Farmers are replacing pomegranates and other crops with opium poppies due to drought and frequent border closures that prevent them from selling their crops. Opium requires less water and retains its value until buyers appear.

**China**
Some 600,000 Chinese workers were employed abroad in August 2021, including many who were employed on the Belt and Road infrastructure projects being built by Chinese companies. Some of the migrants say they were misled by Chinese recruiters who promised them over $2,000 a month abroad. Some wound up earning far less and having their passports confiscated so that they could not return home.

**India**
The total fertility rate, the average number of children women have in their lifetime, fell to 2.0 in 2019-20 in India, below the replacement level of 2.1. TFRs are lower in urban than in rural areas, and in the richer southern states of the country. Despite the falling TFR, India’s population is expected to increase from 1.4 billion to 1.6 billion before stabilizing.

New Delhi choked on noxious haze in November and December 2021, an annual event due to weather patterns that trap factory and farm smoke over the Indo-Gangetic plain of northern India between the Thar Desert and the Himalayas. India has 15 of the 20 cities with the worst air, prompting warnings that poor air adversely affects health.

Sustained farmer protests forced the government of PM Narendra Modi in November 2021 to repeal three laws enacted in September 2020 that aimed to free up markets for farm commodities. Mostly Sikh farmers launched protests in October 2019 against laws that ended the role of government-monopoly buyers of their wheat and rice,

The farmers feared that competition between buyers would push down prices of these crops, which are in excess supply. There is general agreement that the current system is broken, but disagreement on how to reform it so that farmers are better off.

Over 60 percent of India’s 1.3 billion people depend on agriculture for most of their income, but agriculture generates only 15 percent of GDP, meaning low farm incomes. Suicides of indebted farmers are common.

In 2015, the Modi government abandoned plans to overhaul agricultural land sales in the face of protests, but in 2016 scrapped the old paper currency without notice, bringing chaos. In 2019, the Modi government resisted changes to a new law that allows long-time Indian residents of all major religions except Islam to obtain Indian citizenship. In March 2020, the Modi government imposed a lockdown that brought the economy to a halt, but failed to anticipate a second wave of covid.

Several prominent Indian female journalists were targeted with false offers to teach at Harvard, prompting some to quit their Indian jobs in order to prepare for non-existent US jobs. Scammers targeted journalists with false offers to attend Harvard-organized conferences and to be visiting lecturers. Most of those who were targeted wrote critically about Indian government policies, and some who realized that the job offers were scams contacted Harvard.

**Japan**
Voters gave PM Fumio Kishida a victory in October 31, 2021 elections after he promised a new capitalism that would reduce income inequality. The Kishida government will raise wages, which average $2,800 a month or $34,000 a year, by three percent in 2022; Kishida wants private employers to raise wages by four percent to jumpstart consumer spending. Wage increases are decided in negotiations each spring, and increased in 1997 by three percent, a record jump that would be surpassed if wages rose four percent in 2022.

Kishida went to elementary school in New York City and has since 1993 represented Hiroshima in Parliament. He is known as a quiet achiever who may restart Japan’s nuclear power plants.
Japan has the world’s third largest economy after the US and China, and has been mired in slow growth since the bubble economy of the 1980s deflated. The Kishida government hopes that the country’s high vaccination rate will allow the resumption of normal life in 2022 and bolster economic growth despite an aging and shrinking population.

Productivity growth has slowed as more firms retain workers who cannot be fired due to lifetime employment policies. In order to maintain flexibility, many employers hire non-regular employees, 70 percent of whom are women, giving them contracts that do not have to be renewed.

Japan has long been closed to most outsiders. However, the shrinking population and labor force is prying open border gates. Up to 345,000 foreign blue-collar workers may be hired in 14 labor-short sectors with five-year work permits, and some more skilled workers may be able to stay in Japan indefinitely with their families.

Malaysia

There were about three million migrant workers in Malaysia in early 2020 when the government closed its borders and sent several hundred thousand migrants home. In Fall 2021, employers complained that they needed an additional 500,000 migrants. The government’s “Malaysianization” program encourages employers to raise wages and automate to reduce their dependence on migrant workers. Palm oil plantations say they are trying to automate, but want to hire 75,000 more migrants to take advantage of high palm oil prices.

Vietnam

China is the world’s factory, but Vietnam is the world’s second-largest supplier of apparel and footwear after China, drawing young people from farms to factory jobs in industrial parks around Ho Chi Minh City and Binh Duong Province. Lockdowns to prevent the spread of covid prompted some factory employees to return to their villages, and many were slow to return to factories in fall 2021 despite higher wages.

ANZ

Australia reopened to skilled foreign workers and international students in December 2021, 20 months after closing its borders to prevent the spread of covid. Despite an eight percent or 11,000 drop from the 137,500 strong horticultural work force of 2019-20, including family and hired workers, fruit and vegetable output in 2020-21 was stable as the smaller workforce worked more hours, changed production methods, and employed more Australians.


Australia’s Fair Work Commission is expected to require all piece rate workers to earn at least A$29.22 ($2115) per hour in 2022, changing a previous policy that allowed piece rate workers to earn less if the crew earned an average A$29.22. The new policy may screen out slower workers.

New Zealand farmers exported NZ$3 billion in fresh fruit in 2021, including NZ$2 billion for 1.5 million tons of kiwi fruit. New Zealand exported 400,000 tons of fresh apples.

GLOBAL: REFUGEES, AFRICA

December 18 is celebrated as International Migrants Day. Leaders of UN agencies emphasized the importance of protecting migrants, and some called on governments to open more channels for regular labor migration in order to reduce irregular migration and migrant smuggling.

World leaders are expected to review progress under the Global Compact for Safe, Orderly and Regular Migration signed in 2018 during the first International Migration Review Forum scheduled for May 2022.

Refugees

UNHCR reported 82 million persons of concern at the end of 2020, including 26 million refugees, four million asylum seekers, and 48 million internally displaced people. No country is required to accept refugees, but the 1951 Refugee Convention obliges its 145 signatories to not refoul or return persons inside their borders who fear a return to their countries of citizenship “owing to a well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group, or political opinion.”

Eight countries are the source of most of the world’s asylum seekers and refugees: Syria, Venezuela, Afghanistan, South Sudan, Myanmar, Somalia, Congo and Eritrea. Most people leaving these countries move to nearby countries, where they often settle. UNHCR data show that fewer than 10 percent of persons who flee their countries are repatriated or return to their countries of citizenship, and one percent are resettled in their countries.

What should be done about the 30 million asylum seekers and refugees? With few prospects for returns and resettlement, the most viable option appears to be integrating them into the countries to which they have moved. However, many host countries do not want to integrate asylum seekers and refugees, as exemplified by Bangladeshi efforts.
Nigeria could have 800 million people, Congo 250 million, and Ethiopia 225 million in 2100.

Africa is expected to urbanize as its population triples. Two of the world's 20 largest urban areas today are in Africa, but 13 of the top 20 are expected to be in Africa by 2100 including Lagos, which is projected to be the world's largest city with 80 million people. Other large urban areas in Africa in 2100 are expected to be Kinshasa with 60 million residents, Khartoum with 28 million, Abidjan with 19 million and Mombasa with 11 million.

Nigeria, Congo, Ethiopia and Tanzania are expected to be among the world’s 10 most populous countries by 2100.

**Cruising**

The cruise industry depends on international migration. Some 225,000 crew from many nations provided services to 30 million cruise passengers in 2019 on 270 ships, half American. Cruise ships accommodate 100 to 6,000 passengers.

There were 92 cruise ships with American passengers in January 2022, and all had some covid cases, prompting the CDC to advise Americans against cruising. Most cruise lines require all passengers to be vaccinated and tested, but the omicron variant nonetheless spread among crew and passengers.

The IMF predicted that the global economy would expand by six percent in 2021 and five percent in 2022 as government support in the wake of covid wanes. Economic growth is projected to be uneven, with Latin America facing a potential lost decade similar to the 1980s when there was little growth.

### Other

#### California: Dairy, Cannabis

Dairy products are California's most valuable farm commodity, worth $7.3 billion in 2019. California has 1.7 million or 18 percent of the 9.4 million US cows, but the state's dairy industry may shrink due to rising water and feed costs. Feed represents about 55 percent of production costs for dairy farmers, and the persisting drought requires farmers to buy more hay and corn to feed their cows.

Between the 1980s and 2000s, California dairies moved from the urbanizing Inland Empire of southern California to Tulare and other San Joaquin Valley counties where land was cheaper. New dairies were often larger, with 1,000 or more cows, and California surpassed Wisconsin as the leading producer of milk in the early 1990s. The California coops that buy most milk required farmers to reduce milk production after 2009, and new state environmental regulations have increased the cost and complexity of dairying in California.

Americans are consuming more dairy products as cheese rather than fluid milk, which encourages the expansion of dairies in Colorado, Texas, and other midwestern states where land and feed are cheaper. Some California dairies are shrinking and shifting their land to almonds and other nuts, which have been more profitable.

About five percent of US milk is organic, defined as cows having access to pasture and limiting the conversion of conventional cows to organic. Organic milk is often ultrapasteurized so that it has months of shelf life, which makes local supplies less important.
Ever fewer organic milk processors in the northeastern US means that some organic dairies have been forced to close because they cannot sell their milk. Most organic milk is from large dairies west of the Mississippi; Aurora Organic has 27,000 dairy cows on four farms in Colorado and Texas.

Cannabis

Some $24 billion worth of cannabis was sold to US residents in 2021, and another $4 billion to Canadians. Most sales were to young men; two-thirds of buyers are men under 35. About 45 percent of US sales are cannabis flowers, 20 percent are vape pens, and 10 percent each are pre-rolls, edibles and concentrates.

The federal government has kept cannabis on the Schedule 1 list of drugs that have no currently accepted medical use, which means that federally regulated banks cannot deal with cannabis producers or retailers. Marijuana plants are subject to powdery mildew, and neighbors often complain about the smell of marijuana plants.

There are sparse data on production and consumption by state. Federal law prohibits moving cannabis over state borders, but California is believed to the largest producer and consumer. Oklahoma has over 9,000 licensed marijuana farms, more than California, due to low startup costs of $2,500 for a license, far less than in other states. Oklahoma growers can produce cannabis for $100 a pound and sell it for $3,000 a pound or more in California or New York if they are willing to risk moving the cannabis over state lines.

The acreage of raisin grapes has been declining due to falling US consumption and rising imports. Most raisin grapes are picked by hand and laid on paper trays to dry into raisins in the fields, but the Sunpreme variety dries on the vine into raisins and can be harvested by machine. Sunpreme grapes do not dry into raisins uniformly, and up to 20 percent of the raisins are lost because they drop to the ground before or during the harvest. Despite these issues, Supreme yields three to four tons of raisins an acre, above the usual two to three tons yields from hand-harvested raisin grapes.

California lettuce growers made the transition from Salinas to Yuma in late October 2021 with prices at their peaks for the year, about $22 a case for Romaine lettuce and $32 a case for iceberg lettuce. Lettuce prices rose further in November 2021 toward $2 a head for a 24-head carton of iceberg lettuce.

California has two table olive processors, Bell-Carter and Musco Family Olive. Bell-Carter canceled most of its grower contracts in 2019 and began to import olives from Spain and elsewhere to process in the US, while Musco urged California growers to replant their olive orchards with high-density dwarf trees whose olives can be harvested mechanically. Traditional olive orchards with 80 trees per acre yield three to four tons of hand-picked olives an acre, while high-density plantings with over 200 trees yield six to seven tons.

Controlled Environment Agriculture (CEA) or indoor farming is expanding, taking the form of greenhouses and vertical structures that protect growing plants. Japan as the most vertical farms that rely on grow lights to produce fresh produce, but the concept is spreading in other areas where consumers are willing to pay premium prices for organic and local produce.

Food, Wine

Food price inflation accelerated in fall 2021 as input costs rose and supply chain disruptions raised food manufacturing and distribution costs. Supermarkets say that price increases of more than five percent prompt shoppers to change their behavior, such as substituting a store brand for a company’s advertised brand.

Americans get almost 60 percent of their calories from ultra-processed food such as ready-to-eat or ready-to-heat meals, including fast-food meals, canned soup, and breakfast cereal.

Chipotle has almost 2,000 US restaurants, each with its own kitchen to make fresh food. Everytable prepares fresh food in industrial kitchens and trucks the food to smaller outlets that sell salads at different prices in different areas, aiming to underprice gourmet salad maker Sweetgreen. The average cost of an Everytable meal is $3.25, and the retail price is $5 plus a delivery charge for meals delivered to homes.

DoorDash and Uber Eats reported that the top food item delivered in 2021 was French fries. The most desired delivery time was 5-7pm on Saturday. Cabernet Sauvignon was the most popular wine delivered, and Tito’s vodka the most popular spirit.

The FAO hosted a dialogue on tea and coffee in October 2021, emphasizing that 80 percent of the world’s coffee, and 60 percent of the world’s tea, is produced by smallholder growers. The FAO aims to improve coffee and tea agriculture with its four betters program, better production, better nutrition, a better environment, and a better life.
FAO estimated that tomato production was 187 billion kilograms in 2020, including 65 billion produced in China, 21 billion in India, 13 billion in Turkey, 12 billion in the US and seven billion in Egypt. Yields averaged 3.7 kg per square meter on the five million hectares planted to tomatoes, but varied widely, from 50 kg per square meter in the Netherlands to six in China and three in India. US yields average 11 kg per square meter from 110,000 hectares.

**Wine**

A 2020 UCCE cost study estimated that an acre of Napa Cabernet Sauvignon grapes yielded four tons worth $8,200 a ton, generating gross revenue of $32,800. UCCE assumed that hand labor costs were $31 an hour, including $21 an hour in wages and $10 an hour in payroll taxes and benefits. Hand workers are assumed to pick a ton of grapes in an eight-hour day, making the cost of picking one ton of grapes $248.

Gallo’s Barefoot is the best-selling US wine, retailing for about $6 a bottle and available in most grape varieties. At the end of 2021, Barefoot launched a wine aimed at enhancing the taste of Oreo Thins cookies, joining the pairing of Usual Wines and Cheez-It crackers.

The US chapter of the Court of Master Sommeliers, created in 1997, expelled six of 22 members for sexual harassment in November 2021. The Court recognized 155 US residents as Master Sommeliers after they passed tough exams, including 131 men. The 2012 documentary Somm followed candidates as they prepared for the exam to become master sommeliers.

The Liv-ex Champagne 50 index, which measures fine wine prices, rose over 30 percent in 2021, double 15 percent increase in global stock indexes. Most champagnes are released ready to drink and consumed soon after purchase, unlike top-end Bordeaux or Burgundy wines that are often kept for years and resold in secondary markets. However, the prices of vintage champagnes such as Dom Pérignon 2008 and Krug 2000 rose about 50 percent due to stock market gains in 2021 and a reduced harvest in 2020 that prompted some champagne houses to release less vintage champagne.

France is expected to ship 320 million bottles of champagne in 2021 worth €5.5 billion. Shipments, which peaked at almost 340 million bottles in 2007, were 245 million bottles in 2020 and 300 million bottles in 2019. Champagne producers blend wines from different years and have a four-year supply in their cellars around Reims and Epernay.

Beer accounts for 44 percent of US spending on alcoholic drinks, spirits 39 percent, and wine 17 percent. Beer’s share of alcohol spending has been falling, the share spent on spirits is rising, and the share spent on wine is steady.

The amount of alcohol is about the same in a 12-once beer, a five-ounce glass of wine, and a 1.5 once shot of 80-proof spirits. The popularity of low-alcohol ready-to-go cocktails has increased pressure to reduce taxes on spirits, which average $0.21 in federal and state taxes for a 1.5 once shot and $0.14 for a 12-ounce beer. Constellation Brands in January 2022 announced plans to market spirit-based ready-to-drink cocktails under the Fresca label. Sales of alternative beverages such as ready-to-drink cocktails are about $8 billion a year.

A 2021 survey found that 40 percent of US drinkers said that they most often drank beer and over 25 percent said spirits, leaving wine with a 35 percent share.

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**CLIMATE CHANGE**

The UN’s COP 26 brought representatives of 190 countries to Glasgow in November 2021 to strengthen country plans to reduce greenhouse gas emissions and slow global warming. In advance of the meeting, the UN said that current country plans would raise global temperatures by over 2.7°C.

China and India are reluctant to reduce emissions as much as other countries would like them too, arguing that they need more assistance to reduce emissions from coal-fired plants that generate electricity. The final text called for a phase-down rather than a phase-out of coal, which is an important source of power in China and India as well as in South Africa, Indonesia and Vietnam.

The Group of 77 developing nations want industrial countries to provide $1 trillion or more a year in climate-finance grants to help them to develop renewable- rather than fossil fuel-based economies and to adapt to rising temperatures.

During climate negotiations in 2015 in Paris, where governments pledged to limit global warming to 2°C above pre-industrial levels, the US and other industrial countries pledged $100 billion a year in climate change-aid between 2015 and 2025 under the UN’s Green Climate Fund. However, few countries fulfilled their promises, so that grants to the fund were about $80 billion. The US has pledged $11 billion a year beginning in 2024. Developing countries often complain of conditions attached to climate aid, such as ensuring gender equity.

Ocean currents influence weather, such as the Gulf Stream that moves warm water northward along the eastern US. Most ocean currents move warm water north and cold
water Antarctic Circumpolar Current, the world’s strongest current, moves water clockwise around Antarctica, keeping the continent cold. Warming ocean temperatures are speeding up the Antarctic Circumpolar Current, with unknown consequences.

**Agriculture**

Agriculture is often seen as a prime culprit for climate change, charged with emitting a third of the world’s greenhouse gases, encouraging deforestation, and using over 70 percent of the world’s fresh water for irrigation. Some farmers are being paid to change farming practices to reduce greenhouse gas emissions. Boston-based Indigo matches nonfarm buyers of carbon sequestration credits with farmers willing to change farming practices, such as no-till and reducing or stopping the use of synthetic fertilizers.

Each metric ton of carbon that is not emitted generates one carbon credit that, for Indigo, is worth $27 in the private and unregulated market. Forest Trends estimates that voluntary carbon offset purchases globally by banks, insurance firms, and others will top $1 billion in 2021. Global cropland could sequester up to 570 million metric tons of carbon a year due to reduced fertilizer usage and changes to farming practices.

Unlike long-lasting carbon sequestration in forests, crop land can be fallowed for one year to obtain carbon credits and farmed the next year, releasing the sequestered carbon. The Climate Action Reserve is a registry that pools carbon credits in the event that farming practices change. However, the process of paying farmers to change their practices to avoid emissions lacks transparency to ensure that emissions reductions are permanent as credits change.

For example, if planting cover crops costs $40 an acre and the carbon credit for planting cover crops is $30 a credit, farmers are unlikely to participate.

California has since 2013 had a cap-and-trade system aimed at reducing carbon emissions. Carbon emitters buy credits that prevent the cutting of trees that store carbon. Wildfires in recent years have destroyed many of the trees enrolled in the carbon credit system.

California’s cap-and-trade program creates a budget of air-emission allowances that companies can buy and sell to give them the right to emit carbon. The price of the credits that permit the owner to emit a metric ton of carbon are expected to rise over time, providing more incentives to reduce emissions.

**Migration**

Before COP 26, the National Security Council in October 2021 released a report that predicted that three percent of the residents of South Asia, sub-Saharan Africa and Latin America, some 143 million people, could become climate migrants by 2050. The NSC called for “a new legal pathway for individualized humanitarian protection in the United States for individuals facing serious threats to their life because of climate change.”

Climate change is expected to increase tensions between countries as they debate how to reduce greenhouse gas emissions, spur competition for new resources as in the Arctic Ocean, and weaken governments in developing countries unable to help their citizens to adapt. Guatemala and Haiti are deemed especially vulnerable to climate change.

**Brazil**

Deforestation shrank Brazil’s Amazon rainforest by over 5,000 square miles in 2021, the most since 2006. Most deforestation occurs when forests are logged or burned for cattle grazing and soybean farming. Brazil is the world’s largest producer of coffee. Coffee berries grow on plants; up to 40 gallons of water are required to grow enough beans to grind for one cup of coffee.

The most popular president in recent times, Luiz Inácio Lula da Silva (Lula), is poised for a comeback for a third term in 2022. Lula lost presidential elections three times before winning in 2002, ushering in a period of prosperity. Lula left office in 2010, and his successor Dilma Rousseff was impeached in 2016 for unlawfully transferring public funds to disguise problems before her 2014 re-election. Current president Jair Bolsonaro was elected in 2018.

Lula is from northeastern Brazil, an area with a quarter of the country’s people and half of its poor people. Under Lula, the government’s Brazilian Development Bank made loans to industrialize Recife and other northeastern cities, especially after oil was discovered offshore in 2007. An orgy of corruption followed, and most of the poorly planned projects approved by Lula and Rousseff that were to be financed by oil failed.

Australia is the world’s largest coal exporter, exporting 439 million tons in 2020, and the third largest exporter of fossil fuels such as coal, oil and gas. The National party, which governs with the Liberal party, represents rural and mining areas and touts the employment that depends on mining. Australia emits two percent of the world’s carbon dioxide emissions, and promised to reduce its emissions by at least a quarter in the 2015 Paris agreement.

The Low Countries have developed defenses against the encroaching
Agricultural and Resource Economics
ARE UPDATE

Over half of the 17 million Dutch residents live below sea level. The Scheldt River flows from France through Belgium and empties into the North Sea on the Dutch coastline. Some of the land reclaimed from the sea (Dutch polder) is being returned to nature to give the Scheldt River space to overflow during heavy rains. Levies built to prevent flooding are being studied, including how much they are weakened when animals dig burrows inside them.

The Rajapaksa family that governs Sri Lanka sometimes announces policy reversals that have unforeseen consequences. The government in April 2021 banned imports of fertilizers and chemicals to have only organic farming. Food production fell and prices rose, prompting the government to permit imports of fertilizers and chemicals for tea, rubber and coconut, the major export crops. Critics say that the turn to organic farming was motivated by a lack of government money caused by fewer tourists and debts owed to Chinese state banks.
A record 1.7 million foreigners were encountered just inside the US border with Mexico in FY21, surpassing the 1.6 million apprehended in FY00. Of those encountered in FY21, 64 percent were solo adults, 28 percent were adults with children, and eight percent were unaccompanied children under 18, and they included 608,000 Mexicans, 309,000 Hondurans, 279,000 Guatemalans, and 96,000 Salvadorans. There were 367,000 other foreigners, including Haitians, Venezuelans, Ecuadorians, Cubans, and Brazilians. Some 61 percent of all persons encountered in FY21 were returned to Mexico under Title 42 of the Public Health Act, including a quarter of the family units but none of the unaccompanied children.

THE BORDER PATROL ENCOUNTERED 200,000 UNAUTHORIZED FOREIGNERS A MONTH OR 6,700 A DAY IN SUMMER 2021

Rural Migration News summarizes the most important migration-related issues affecting agricultural and rural America. Topics are grouped by category: Rural Areas, Farm Workers, Immigration, Other, and Resources.

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Editor: Philip Martin
Managing Editor: Cecily Sprouse
rural@primal.ucdavis.edu
http://migration.ucdavis.edu

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