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Introduction
Florida was the nation’s ninth largest farm state in 2005, with farm sales of $7.8 billion, including 80 percent from crops. The leading crops were greenhouse and nursery commodities worth $1.9 billion, oranges worth $1 billion, and tomatoes worth $805 million.

Florida farmers reported farm labor expenses of $1.6 billion in 2002. At average hourly earnings of $8.69, these expenses generated 90,000 year-round jobs. Farmers reported hiring almost 120,000 workers directly in 2002 (other workers are brought to farms by contractors), and 80 percent of these direct hires were on three types of farms—vegetables and melons, fruits and nuts, and greenhouse and nursery operations (workers employed on two farms are counted twice in these data).

There were an average 81,000 workers employed by crop and crop support employers who were covered by Florida’s UI system in 2006; employment in UI-covered agricultural, forestry, and fisheries jobs averaged 94,000, and ranged from a low of 65,000 in August to a high of 112,000 in December. UI-covered wages totaled $2.1 billion, and the average wages paid to a year-round UI-covered job were $22,800, an implied $11 an hour.

Three sectors accounted for two-thirds of UI-covered employment, fruit production, greenhouses and nurseries, and crop support activities such as labor contracting. Employment in greenhouses and nurseries was relatively stable at about 24,000, but employment in fruit farming, which averaged 9,600, and crop support activities, which averaged 24,500, was far more seasonal. Fruit farming employment was almost 13,000 between January and March, a period when crop support activities employment was 33,000 to 34,000 and reached its lows in August, at about 5,300 and 11,800, respectively.

About 50 Florida farmers have been certified to fill 2,000 jobs with H-2A workers in recent years; ¾ of these H-2A jobs have been in citrus. Most Florida farm employers use agents to apply for H-2A certification, and many are applying well before the 45-day minimum application cut off in order to ensure that the Florida SWA and the state Department of Health do required housing inspections. Job information is typed the Employ Florida Marketplace system, but the employer’s name is suppressed; workers wanting a referral visit a One-Stop Center to get the complete job contract and a referral letter. Employers may request that the
One-Stop Center complete an I-9 form on each worker before making the referral, and many do.

Orange Harvesting Mechanization
Florida has 400,000 acres of oranges that yield 140 million 90-pound boxes of fruit that is processed into juice (about 350 boxes per acre). About 20,000 workers hand harvest most of these oranges. Most work 1,500 hours during the 33-week harvest. In 2009, about 36,000 acres and almost 10 million boxes of oranges were mechanically harvested.

The mechanization of the Florida orange harvest highlights the importance of a systems approach involving both biology and engineering. It is not enough to develop mechanical harvesters with rotating spindles that knock ripe oranges off of trees and into a catching frame to be conveyed to trailers that haul the oranges to processors. The trees must be planted for mechanical harvesting; smaller trees planted close together with rows wide enough to accommodate the machines are best. Current machines harvest 75 to 80 percent of available oranges, a fruit recovery rate that engineers seek to increase so that growers do not send hand crews after the machines.

The major challenge to harvesting oranges mechanically is that Valencia orange trees also include the next year's fruit on the tree. This immature fruit can be removed by machines harvesting ripe oranges, lowering future yields. The abscission chemical CMNP loosens ripe fruit sufficiently so that immature fruit is not removed by the machine's shaking of the tree and limb. If the EPA approves use of CMNP, orange harvest mechanization could speed up.

Orange harvesting in 2010 is analogous to harvesting processing-tomatoes in the mid-1960s. In the tomato case, the incentive to mechanize was the end of the Bracero program in 1964. Researchers developed a uniformly ripening tomato and engineers designed a once-over harvester that cut the tomato stalk and shook the ripe tomatoes from the vines. Hand and eventually electronic sorters checked the harvested tomatoes before they were conveyed to trailers that held two 12.5 ton tubs.

The federal and state governments played critical direct and indirect roles in spurring processing-tomato mechanization. Ending the Bracero program was accompanied by federal and state research funding for labor-saving mechanization. Processors made adjustments to handle large loads of mechanically harvested fruit, which arrived with more debris than hand-harvested tomatoes.

A key governmental role involved sampling harvested tomatoes to determine their quality and price. Processors pay growers by weight, about four cents a pound in recent years, so that rejecting a 60-pound lug meant a $2.40 loss to the grower. However, rejecting a 12.5 ton tub of tomatoes meant a $1,000 loss, prompting the state government to establish stations at which random samples of tomatoes were taken to determine their quality. Without these since-privatized stations, tomato harvest mechanization would likely not have gone from one to 100 percent between 1960 and 1970.
Tomatoes: CIW Boycotts
The Coalition of Immokalee Workers (CIW) has targeted buyers of Florida tomatoes since the early 1990s, trying to persuade them to require the growers of the mature green tomatoes that are sliced for use in fast-food sandwiches to pay their pickers an additional penny a pound (mature green tomatoes are gassed to turn them red). Most growers pay pickers $0.45 per 32-pound bucket; according to the CIW, the piece rate has not changed for a decade.

After the CIW organized boycotts, fast-food chains beginning with Yum Brands (Taco Bell) began to sign agreements with the CIW offering their suppliers an additional 1.5 cents a pound for tomatoes, with one cent for pickers and a half cent for the administrative costs involved in making the payments to workers. However, major Florida growers refused to implement the CIW-fast food chain agreements, and the extra 1.5 cents accumulated in escrow; about $2 million was in escrow for tomato pickers at the end of 2009.

In February 2010, the FTGE announced that its members could sign three-party agreements raising picker wages as demanded by the CIW under a new Social Accountability Program (www.floridatomatogrowers.org). The FTGE said that its 16 members, who produce most US mature green tomatoes from December through April, would commit themselves to a Florida Tomato Grower Code of Conduct and could sign agreements with tomato buyers that require higher piece rates for tomato pickers. It is not clear if FTGE growers will continue to reject the agreements reached between the CIW and fast-food chains.

Under the FTGE proposal, tomato buyers could provide a weekly "supplemental wage" payment to the grower, who would distribute the payment to workers minus a 15 percent overhead in proportion to the hours worked by each worker that week. FTGE said it would be impossible to pay pickers an extra penny a pound only when they picked tomatoes destined for McDonald’s.

The FTGE Code of Conduct pledges that growers will abide by existing laws, that is, pay minimum wages, not use forced labor, and abide by anti-discrimination laws. The CIW aimed to go beyond having growers abide by existing laws; it wanted to use its leverage with tomato buyers to improve the wages and benefits of farm workers employed by growers who produce tomatoes.

The retailer in the spotlight in spring 2010 is Publix, a 1,000-store supermarket chain headquartered in Lakeland, Florida. The CIW has been pressuring Publix to sign an agreement pledging to raise the prices it pays to the growers of the tomatoes it sells so that those growers can raise the piece rate wages of pickers by a cent a pound; the CIW organized a march from Tampa Bay to Lakeland in April 2010. Publix countered that "This is a labor dispute between a supplier and their employees, and we do not intervene in labor disputes.” In April 2010, ARAMARK agreed to pay an additional 1.5 cents a pound for Florida tomatoes.

The CIW, which describes itself as “a community-based worker organization,” helped the US Department of Justice to prosecute a labor contractor for enslaving workers in 2000. In 2010, the CIW began using a farm truck to highlight at demonstrations what it calls "slavery" among the workers employed by the labor contractors who recruit many Florida farm workers.
Florida had freezing weather in January 2010, which raised the grower price of tomatoes from about $0.25 a pound to $1 a pound (tomatoes are sold in 25-pound cartons). Florida produces a third of the fresh vegetables such as tomatoes in the winter months; the other two-thirds are imported, usually from Mexico. The freeze did not cause as much damage as freezes in 1983 and 1984.

**Florida Sugar Cane**

Between the 1940s and 1990s, sugar cane was in the spotlight because of its reliance on guest workers from sugar-producing Caribbean islands.

Sugar cane production began in the 1930s in the south-central Florida when a few large landowners realized that they could grow the perennial grass in the area’s subtropical climate. Obtaining harvest workers was a problem, in part because local workers knew of the debt peonage that sometimes occurred on sugar plantations. In 1942, the US Sugar Corporation and four of its managers, as well as the sheriff of Hendry County, were indicted by a federal grand jury for violating federal peonage statutes by holding workers by force until they repaid their debts.

Sugar mills wanted a labor force that could not leave the fields for other jobs. They found such workers in Caribbean islands such as Jamaica, and imported them as guest workers so they would have to stay with the mills or leave the United States (Griffith, 2006). Caribbean cane cutters were admitted first under exceptions in US immigration law, and later with H-2 and H-2A visas. In 1942, the War Food Administration negotiated MOUs with the British West Indies to recruit farm workers for Florida and other eastern states. A peak 16,000 Jamaicans were admitted in 1944.

After World War II ended, the guest worker program continued, with the British West Indies Central Labor Organization (BWICLO) representing the governments of the islands that were home to farm workers headed to the United States. BWICLO and island governments controlled the list of workers from which US employers could make their selections, and required workers selected to go to the United States to sign supplemental agreements that deducted some of their earnings and forwarded them to government-controlled banks in Jamaica and other islands.

Jamaicans with H-2 visas were admitted to harvest Florida’s sugar crop. As sugar cane harvesting was mechanized in Louisiana, Australia, and other countries, there were calls to mechanize the Florida harvest, but the mills argued that the muck soil could not support the weight of machines. However, after class-action suits were filed on behalf of cane cutters in the early 1990s alleging

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1 Allison T. French, Supervisor of the US Employment Service in West Palm Beach, in the early 1940s noted that “negro labor in Florida will not work for the Sugar Corporation.” He admitted that “it was true that Negroes were occasionally beaten for attempting to leave the job when they owed debts at the company’s commissary, and others were sometimes required to work as many as 18 hours a day at cane cutting.” Quoted in Williams 1991.

2 These indictments were later dismissed because of improper jury selection.
that the mills underpaid the cutters, and a state court initially agreed that the cutters were owed over $100 million in back wages, the Florida harvest was mechanized within five years.

Florida’s sugar production was limited until trade with Cuba was halted by the US government in July 1960 in retaliation for President Fidel Castro’s confiscation of the assets of US firms there. The Cuba embargo encouraged Florida’s cane acreage to quadruple within five years, and to double between the mid-1960s and mid-1980s.\(^3\) In 2005/06, Florida harvested 13 million tons of cane worth $30 a ton or $390 million from 402,000 acres owned by large corporate farms. Flo-Sun, controlled by the Fanjul family of Palm Beach, had 150,000 acres of sugar cane in the early 1990s, followed by the United States Sugar Corporation with 140,000 acres, Talisman Sugar, a subsidiary of St. Joe Paper Company, 48,000 acres, and Texas-based King Ranch, 20,000 acres.

The sugar industry is vertically integrated. The mills own farm land and grow at least some of the cane they grind, called "administration cane," and the mills harvest their own cane as well as that of independent growers. The average mill capacity in the early 1990s was 16,400 tons a day.\(^4\)

A 1992 USDA review of the Florida cane industry cited four major issues: soil subsidence, yields, labor and environment (Buzzanell et al, 1992). Soil subsidence is the biological oxidation process through which an average 1.2 inches of soil in the Everglades area is lost each year as bacteria turn the organic residue soil into particles that are blown away. By keeping water levels higher, soil subsidence is reduced; some growers plant rice in the summer fallow months and flood the fields as well. Cane yields were about 32 tons an acre from the 1960s through the 1980s, rising to 35-36 tons an acre in 1990-91. New varieties have increased yields—the three mainstay varieties of the industry, CP-72-1210, CP-70-1133, CL-61-620—fell from over 80 percent of all cane in the mid-1980s to less than 60 percent a decade later.\(^5\)

Environmental issues remain problematic. The Florida sugar industry is mostly in the Everglades Agricultural Area created in the 1930s and the 1940s by draining swamplands. After back-to-back hurricanes flooded most of south Florida in 1947, the Army Corps of Engineers was ordered to create both the EAA and the

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\(^3\) Florida’s sugar cane acreage rose from 49,000 in 1960/61 to 220,000 in 1964/65, and has been about 400,000 since the mid-1980s (Buzzanell et al, 1992).

\(^4\) The average mill capacity in the early 1990s was 16,400 tons a day, meaning that the industry could grind about 115,000 tons of harvested cane a day. US Sugar is the largest cane miller, with two mills that can grind 22,000 and 16,000 tons of cane a day. In the early 1990s, the cooperative’s mill could grind 21,000 tons a day; Flo-Sun subsidiaries Okeelanta and Oseola 21,000 and 12,000 tons a day; Atlantic, 12,000 tons a day; and Talisman, 11,000 tons a day (Buzzanell et al, 1992).

\(^5\) CP stands for Canal Point, the location of a public-private facility; CL for Clewiston, the location of a private US Sugar facility. In 2006, CP 89-2143 was planted on 27 percent of Florida cane acreage, CP 80-1743 on 23 percent, CP 88-1762 on 18 percent, and CP 78-1628 on 13 percent.
Everglades National Park. The organic or muck soils in the EAA were ideal for growing cane, with wet and warm summers and dry and freeze-free winters, but cane farming slowed the flow of fresh water entering the Everglades National Park during the summer months and added phosphates, enabling cattails to replace native saw grasses.

The federal and state governments in the 1990s debated how to protect the Everglades “river of grass,” and the result was an $8 billion, 20-year project that involves government purchases of 250,000 acres of land surrounding the park, including 60,000 acres of farm land; cane growers will make a small contribution to the clean up. The sugar industry’s major concern was to avoid paying for the clean up. A state ballot initiative in 1996, Amendment 4, that would have required sugar companies to pay a $0.01 per pound tax on the sugar they produce to raise $700 million to filter phosphorus-laden water before it enters the Everglades was defeated with the help of $25 million from the sugar companies.

**Labor Issues**

Almost all Florida cane was cut by about 10,000 guest workers in the early 1990s. Employers were required to recruit US workers, which they did by completing a DOL Form ETA 790, the so-called “job clearance” order that spelled out the wages and working conditions they were offering. These job orders were circulated or cleared throughout the United States so that workers seeking farm jobs could learn about them and respond. The job order became a contract between the mills and any US or H-2/H-2A workers cutting cane.

High-price sugar had led to a higher-than-usual wage for cane cutters. Sugar job orders in the late 1980s offered a government-mandated minimum wage, the Adverse Effect Wage Rate, of at least $5.30 an hour at a time when the federal minimum wage was $3.35 an hour. However, cane cutters earned a piece rate wage, which the mills called a task rate, and workers who could not cut fast enough to earn at least $5.30 an hour at this piece or task rate could be terminated. If the mills retained slower cutters, they had to “make up” their piece rate earnings so that all workers earned at least $5.30 an hour.

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6 The federal and state governments will share the cost of the clean up, with sugar companies contributing $230 million. James McKinley, "Sugar Companies Play a Pivotal Role in Effort to Restore Everglades," New York Times, April 16, 1999
7 The 16-county South Florida Water Management District is in charge of Everglades restoration, but it does not have the estimated $12 billion needed to implement the clean up. The New York Times reported that, after US Sugar's debts climbed sharply, US Sugar approached the state to sell its land, and the state agreed to a relatively high price. Don Van Natta Jr. and Damien Cave, "Deal to Save Everglades May Help Sugar Firm," New York Times, March 7, 2010
8 Most of the sugar mills relied on Florida Fruit and Vegetable Association to handle worker recruitment, including filing forms with DOL, arranging for the recruitment and transport of workers, and returning migrants to their country of origin when they were terminated and at the end of the harvest.
To give workers who had not cut cane before an idea of how much cane they would have to cut in order to avoid termination, the mills’ job orders included the phrase: "a worker would be expected to cut an average of eight (8) tons of harvest cane per day throughout the season." Mills reserved the right to test a worker’s productivity any time after a seven-day training and break-in period. If a worker failed on three days to cut fast enough to earn $5.30 an hour at the mill-specified piece or task rate, the worker could be terminated and sent home.

The combination of the government-set minimum wage of $5.30 an hour and the mill-set productivity standard of a ton an hour or eight tons a day created an iron triangle that should have automatically made the piece or task rate for cutting cane $5.30 a ton. For example, if the minimum wage were $10 an hour and the piece rate $10 to pick a bin of apples, the productivity standard is a bin an hour. A worker who picked only ¾ of a bin in one hour would earn $7.50 at the piece rate wage but, because of the $10 minimum wage, the employer would have to “make up” $2.50. Most employers fire workers who cannot work face enough at the piece rate they set to earn the minimum wage.

Most job orders specify all three parameters of the iron triangle, the minimum wage, the piece rate, and the productivity standard. The sugar mills’ job order was unusual because it specified a task rate" rather than a piece rate, which was explained on a handout given to cutters as follows: "The task, set for each day in terms of the number of feet of cane the worker is expected to cut in one hour, is based on the experience of the company over many years...Over 95 percent of the cutters have made the task in the past, and it is considered a reasonable task and work standard by the company." “Making the task” meant cutting cane fast enough to earn the minimum wage.

The mills used “task rates” to save money. The mills, but not the workers, knew how many tons of cane were in 100 or 150 feet of cane because they could estimate cane yields accurately. The mills kept meticulous records, and set task rates that required workers to cut 1.3 to 1.7 tons of cane an hour. Supervisors, who were ex-cutters in the United States on H-2/H-2A visas, carried tape measures and “checked out” cutters who did not cut cane fast enough, ordering them to stop working and sit on the bus until the end of the work day. After three check outs, a cutter could be terminated, which usually meant a quick return trip to Jamaica.

The key to understanding how the mills but not the cutters knew how many tons of cane were in the 100 or 150 foot task assigned to a worker lies in the fact that cane is planted in rows five feet apart and workers are assigned to cut two adjoining rows of cane, known as a cut row. Since there are 43,560 square feet in

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9 Workers cut two rows of cane, e.g. worker A takes row one and two, and throws his cut cane between rows two and three and his trash between one and two, worker B takes rows three and four and throws his cane between rows two and three with A, and puts his trash between rows three and four. A continuous loader picked up the cut cane from the pile rows, cut it into smaller than eight foot long pieces, and loaded it into cane wagons pulled by tractors—one tractor typically pulled four cane wagons, each of which held three to five tons of cane. The wagons took the cane to a transfer station, where it
an acre, the mills knew that a field with 43.56 tons an acre had a ton of cane in every 100 feet of cut row.\textsuperscript{10} If the task rate required workers to cut 150 feet in one hour, the productivity standard was 1.5 tons an hour. The mills did not have to weigh the cane cut by each workers because they were very good at estimating yields. Since feet equals tons, and tons equals feet, mills knew how many tons of cane workers cut because they knew how many feet of cane they cut.

The US Department of Labor defines a piece rate wage as one that measures the work done by individuals. The mills argued that the task rate was not a piece rate because the work done by individuals was not measured, and DOL agreed. In 1982, migrant advocates sued DOL because it failed to order employers to raise their piece rates when the government raised the minimum wage (AEWR). The advocates argued that that, if DOL did not require employers to raise their piece rates in lockstep with the minimum wage, workers would have to work harder to earn the higher wage.\textsuperscript{11}

The US Department of Labor accepted this logic, and in 1985 ordered farm employers to raise their piece rates as the minimum wage rose.\textsuperscript{12} However, under pressure from the sugar mills, DOL concluded that the task rate in sugar cane was not a piece rate, exempting sugar from the link between the minimum wage and task rates. Migrant advocates sued DOL, and a federal judge ordered DOL to determine whether the task rate system was in fact a piece rate system. DOL conducted a study that was later modified. The draft study concluded that the

\textsuperscript{10} A field with 43.56 estimated tons of cane per acre (ET-acre) has one ton of cane in each 1,000 square feet or in 100 cut-row feet of cut row (two rows planted five feet apart). If the task rate or row price is $3.75 in such a field, the cutter is being paid $3.75 for cutting 100 feet or $3.75 a ton; if the task rate is $4, the piece rate is $4 a ton etc. The formula to convert the task rate per 100 feet (PR-100) into the price per estimated ton (P/ET) is: 
\[ P/ET = PR-100 / ET-acre / 43.56. \]
If the estimated yield per acre is 43.56, the price per 100 feet, PR-100, equals the price per estimated ton, $P/ET$. As the yield falls below 43.56, the price per estimated ton exceeds the price per 100 feet, e.g. if the yield is 22 tons an acre, the price per estimated ton is twice the price per 100 feet (there are 0.5 tons each 100 feet). If the yield exceeds 44 tons, the price per estimated ton is less than the price per 100 feet, e.g. if the yield is 50 tons per acre and the price per 100 feet is $4, then the 
\[ P/ET = 4 / (50 / 43.56) = $3.49. \]


\textsuperscript{12} DOL Regulations at 20 C.F.R. § 655.207(c) state: “in any year in which the applicable adverse effect rate is increased, employers shall adjust their piece rates upward to avoid requiring a worker to increase his or her productivity over the previous year in order to earn an amount equal to what the worker would earn if the worker were paid at the adverse effect wage rate.” Some grower experts opposed linking hourly and piece rate increases, arguing that forcing piece rate wages to increase in lock step with the AEWR might discourage innovation, since the grower could not reap the productivity increases the might result from, for example, lighter ladders or lighter bags into which to pick apples.
eight-ton statement was a productivity standard, but the political clout of sugar mills was evident in the final report, which concluded that the task rate system was not a piece rate system, eliminating the need to link task rates and minimum wages.\textsuperscript{13}

**Suits, Mechanization, and Lessons**

In 1989, class-action suits were filed by cane cutters asserting that the eight-ton productivity standard and the $5.30 an hour minimum wage created a contract that promised cutters a piece rate of $5.30 per ton. The suit used the iron-triangle argument: if the minimum wage was $5.30 an hour, and workers had to cut an average eight tons of cane in an eight hour day to be considered satisfactory,\textsuperscript{14} then the piece rate for cutting cane must be $5.30 a ton.\textsuperscript{15} The mills budgeted and paid workers much less, about $3.75 a ton, and the suits asked for back wages of $1.55 a ton or about $100 million with interest.

A Florida state judge in August 1992 found the iron triangle argument convincing and ordered the mills to pay each cutter $1,000 to $1,500 in back wages for the several years of harvesting that were not excluded by the statute of limitations.\textsuperscript{16} This decision prompted US Sugar to adopt a "Labor Peace" program and to acknowledge that its task rate was a piece rate. US Sugar offered cutters $5.10 per net ton, after trash was removed from the stalk, and required them to cut at least one gross ton of cane an hour.\textsuperscript{17} US Sugar in July 1998 paid $5.6 million to settle the workers’ suit.\textsuperscript{18}

\textsuperscript{13} U.S. Department of Labor Final Report Regarding Methods of Payment in Sugar Cane. November 12, 1993. DOL wrote that the task rate system utilized by the sugarcane industry is "incapable of the type of mathematical adjustment required" by the requirement to link AEWR and piece rate increases.

\textsuperscript{14} The sugar companies cannot raise the productivity standard from, say, eight to 12 tons a day during the season as workers get more proficient and the cane gets heavier. Such a "moving the goalposts" change would require cutters to do more work to earn the same pay and hurt any US workers who joined crews during the harvest. Under the H-2/H-2A programs, employers must hire US workers who show up to work until the harvest is at least 50 percent completed.

\textsuperscript{15} The precise relationship is: Minimum Hourly Earnings ($/hour)/Productivity Standard (units/hour) = Task or Piece Rate ($/unit). The more usual expression: PS x TR or PR = Task or Piece earnings, which must be at least the minimum hourly earnings or the employer must provide make up pay. Employers are not required to retain workers who cannot achieve the Minimum Hourly Earnings, and most such workers are fired.

\textsuperscript{16} Most workers earned $5,000 to $7,000 during the five month harvest.

\textsuperscript{17} US Sugar had earlier been a staunch defender of the task rate system. In an August 4, 1992 (pA19) letter to the Washington Post, James Terrill of US Sugar wrote: “cane cutters work an average of six to 6 1/2 hours per day and cut about 1.2 to 1.5 tons per hour. Their typical wage is close to $7 per hour and is monitored by electronic timekeepers. Housing and medical care are free. Food is subsidized. At home they would earn $3 per day.”

\textsuperscript{18} US Sugar reported in April 1993 that, under the new piece rate system, the average cutter earned $48 a day in 1992-93, up from $42 in 1991-92, and average hourly earnings rose to $7.24 from $6.54; the fastest cutters earned $11 per hour when the AEWR was $5.91.
The other mills appealed the judge’s decision, and a state appeals court agreed that there should be a trial to determine whether the contract was "clear and unambiguous" about the $5.30 a ton piece rate. The first case involved Atlantic Sugar, one of the mills controlled by the Fanjul family. A jury was asked to answer “should and could” questions: should the mills have paid cane cutters an average $5.30 per ton and could the companies have paid cutters $5.30 a ton without weighing each cutter’s cane? Worker attorneys used the iron triangle argument to make the should argument and company yield data to make the could argument.

The mills countered that they never promised to pay cutters $5.30 a ton, and bolstered their case by citing the DOL conclusion that the task rate was not a piece rate. Some cutters, testifying in Jamaican patois, said that their work assignment was to cut a certain number of feet, not a certain number of tons. The mills showed that they did not pay exactly $3.75 a ton; they paid slightly more in fields with recumbent or flattened cane and slightly less when the cane was straight and easier to cut.

The jury decided that Atlantic did not promise cutters $5.30 a ton, but also concluded that "Atlantic Sugar consistently misrepresented to the cutters the incentive features of their task system of payment. It was shameful." Juries reached similar verdicts absolving Okeelanta and the Sugar Cane Growers Cooperative, agreeing that, if the mills said the task rate was not a piece rate and DOL agreed, workers could not expect to be paid $5.30 a ton. Instead, workers could expect to earn $5.30 an hour if they worked fast enough to complete their assigned task.

The cutters did not get back wages, but the mills began to mechanize when they realized that successful cutter suits could raise their labor costs by 40 percent. Talisman sugar, a mill not involved in the cutter suits, mechanized cane harvesting in the early 1980s. Citing "unfounded legal hassles" associated with the H-2A program, the Sugar Cane Growers Cooperative of Florida mechanized harvesting after the 1991-92 season. US Sugar was the last mill to mechanize, after the 1995-96 season. In Louisiana, where US Blacks rather than H-2A workers cut sugar cane, the harvest was mechanized in the 1950s and 1960s.

Sugar is widely acknowledged to be the poster child for farm policies slow economic development in migrant countries of origin and increase immigration to the United States. The sugar cane industry exists in south Florida because trade barriers keep lower-cost sugar out of the United States. For years, cane growers...

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19 Four Fanjul brothers, Alfonso or "Alfie," José or "Pepe," Alexander, and Andres, control Flo-Sun, Inc, which has sugar cane and mills in Florida and the Dominican Republic. They are major contributors to both Democratic and Republican politicians. Jeffrey Birnbaum, "Cuban-American Contributors Open Checkbooks After Torricelli Exhibits an Anti-Castro Fervor," The Wall Street Journal, August 3, 1992.
20 However, an analysis of the task rates across the thousands of fields harvested by the mills found that 91 percent of the variation in task rates between fields could be explained by estimated yields.
argued that they could not find US workers and could not mechanize the harvest because of the unique soil conditions. This migration-in-place-of-trade continued for five decades, until worker suits alleging underpayments spurred mechanization.

One lesson from the sugar experience is skepticism about grower claims that there are no alternatives to imported farm workers. The speedy mechanization of the harvest when faced with sharply higher wages belies the assertions that were no alternatives to hand harvesters. A second lesson concerns the H-2A program. Once employers become accustomed to guest workers, it is very hard to revert to US workers, since recruitment and supervision take on a “foreign” flavor that makes any US workers who apply for jobs feel out of place.

Third, the H-2 program gives employers extreme control over workers. Some of the mills fired a few slower cutters early in the season to inspire remaining cutters to work faster. The mills reasoned that, even if they had to pay return transportation for fired workers, the fear instilled in remaining cutters to work faster reduced the total number needed. Workers did not know how much cane they cut, but company records show that some of those terminated early in the season cut more than a ton an hour, but not the 1.5 tons an hour required by the task rate.

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