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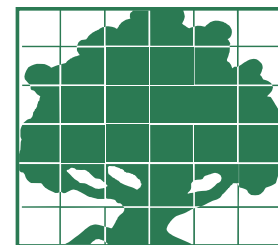
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California's Proposition 37 and the WTO Agreements

Drew L. Kershen

Proposition 37 raises significant and difficult issues as to whether it complies with World Trade Organization (WTO) Agreements. The analysis below describes and discusses the compatibility between Proposition 37 and WTO Agreements.

Proposition 37 is an initiative petition that, if adopted by California voters in November 2012, will impose mandatory labeling on a broad range of raw and processed foods. Specifically, proposed Section 110809 mandates that a food that “is or may have been entirely or partially produced with genetic engineering” state that fact through specifically worded labels. In addition, Subsection 110809.1 prohibits the use of the words “natural,” “naturally made,” “naturally grown,” “all natural,” or “words of similar import” for processed foods.

Even if adopted by California voters, Proposition 37 assuredly faces multiple legal challenges prior to its entry into force in 2014. Three legal grounds often mentioned include:

- U.S. constitutional challenge under the dormant commerce clause doctrine;
- U.S. constitutional challenge under the First Amendment commercial free speech doctrine;
- U.S. constitutional challenge under the First Amendment prohibiting the establishment of religion.

By contrast, I provide an analysis of Proposition 37 and the World Trade Organization (WTO) Agreements, more specifically the Agreement on the Application of Sanitary and Phytosanitary Measures (the SPS Agreement) and the Agreement on Technical Barriers to Trade (the TBT Agreement).

The WTO Agreements

Both the SPS Agreement and the TBT Agreement set forth a delicate and difficult balance between national sovereignty and the obligation to promote world trade through nondiscriminatory and harmonized measures

Do the WTO Agreements Apply to California Enactments?

The WTO Agreements are international agreements between Member States—i.e., recognized sovereigns in international law. The United States is a recognized sovereign and it is also a Member State of the WTO Agreements. By contrast, California is not a recognized sovereign and it is not a Member State of the WTO Agreements. The first question to ask is: Do the WTO Agreements apply to California's Proposition 37? The answer is “yes”—through indirect routes.

The SPS Agreement, Article 13 imposes a duty upon the Member State (the United States), as the overriding sovereign, to take positive measures to support compliance by governmental units (California) within the sovereign nation.

Under the TBT Agreement, Articles 3 and 7 create obligations for the Member State (the United States) to “take such reasonable measures as may be available to them to ensure compliance by such [local government] bodies ...” with the TBT Agreement.

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Is Proposition 37 in Compliance with the WTO Agreements?

Whether Proposition 37 complies with the WTO Agreements requires determining against which WTO Agreement—the Agreement on the Application of Sanitary and Phytosanitary Measures (the SPS Agreement) or the Agreement on Technical Barriers to Trade (the TBT Agreement)—Proposition 37 must be measured.

Proposition 37 must first be classified either as a sanitary and phytosanitary measure or as a technical barrier to trade measure. Once classified, either the SPS Agreement or the TBT Agreement, and it alone, serves as the legal standard by which to evaluate Proposition 37.

SPS Agreement Annex A defines sanitary and phytosanitary measures as “all relevant laws, decrees, regulations, requirements and procedures including, inter alia, ... packaging and labelling requirements directly related to food safety.” From this Annex A definition, California’s Proposition 37 is a SPS measure if it is “labelling requirements directly related to food safety.”

Evidence that Proposition 37 is a label directly related to food safety comes from two sources—its language and its electoral promotion.

In its language, Proposition 37 proclaims in five of the eleven paragraphs of Section 1 (Findings and Declarations) that its proponents support it because of concerns about adverse health. In addition, if adopted at the November 2012 election, Proposition 37 states that its provisions become part of the California Health and Safety Code.

In the documents and articles promoting Proposition 37, proponents regularly proclaim that the voters should support Proposition 37 because Californians are at great risk for their health and safety against which risks labels would provide them protection.

At face value from its language and its supporters’ statements, Proposition

37 easily can be classified as a labeling requirement directly about food safety and, therefore, as a SPS measure.

Measuring California’s Proposition 37 against the SPS Agreement

SPS Agreement Article 2 states, in paragraph 2.1, that “Members have the right to take sanitary and phytosanitary measures necessary for the protection of human, animal or plant life or health, provided that such measures are not inconsistent with the provisions of this [SPS] Agreement.”

Paragraph 2.2 provides that Members can adopt SPS measures “... only to the extent necessary to protect human, animal or plant life or health, is based on scientific principles and is not maintained without sufficient scientific evidence, ...”

Construing paragraph 2.1 together with paragraph 2.2 means that a SPS measure is not compliant with the SPS Agreement if the measure is not necessary and if the measure fails to be based upon and maintained upon sufficient scientific evidence. If the SPS measure fails the standard set forth in paragraph 2.2, the SPS measure is per se a violation of the SPS Agreement.

Proponents of Proposition 37 face a difficult, if not impossible, task of meeting the burden of providing scientific evidence to support it as a SPS measure under Paragraph 2.2. Regulatory agencies around the world have granted regulatory approval to genetically-engineered crops, from which the raw agricultural products and processed food ingredients come, after specifically evaluating human, animal, and plant health and safety. As of July 2012, the GENERA database listed 583 scientific studies on the safety of GMO crops and their food ingredients.

In addition, the experiential evidence of billions of meals consumed by persons around the world since commercial release of genetically-engineered crops in 1996 supports the safety

of genetically-modified foods. Since 1996, there has not been one verified health complaint to humans, animals or plants from genetically-engineered crops, raw foods, or processed foods.

Despite some published attempts to deny this overwhelming scientific evidence in support of genetically-engineered foods, the scientific consensus is clear—genetically-engineered crops, foods, and processed ingredients do not present health and safety concerns for humans, animals, or plants.

SPS Agreement Article 3 (Harmonization) sets forth provisions that could save Proposition 37. Paragraph 3.2 affirms a SPS measure that conforms to international standards relating to health and safety. However, Paragraph 3.2 does not protect Proposition 37 because there are no international standards that categorize genetically-engineered raw or processed foods as unsafe or unhealthy.

Comparing Proposition 37 to the legal standards in the SPS Agreement shows that Proposition 37 almost assuredly is not compliant with the SPS Agreement. Indeed, the WTO SPS claim against Proposition 37 is so strong that its proponents are probably not going to defend it as meeting the legal standards of the SPS Agreement. Despite its textual language and the electoral advertising emphasizing food safety and health concerns, proponents will argue that Proposition 37 cannot properly be characterized as a labeling requirement “directly related to food safety.” Proponents of Proposition 37 will seek to have it classified as a technical barrier to trade in order to avoid the SPS Agreement and its scientific evidence standards.

Measuring California’s Proposition 37 Against the TBT Agreement—Substantive Provisions

The TBT Agreement applies to technical regulations, including “marking or labelling requirements as they apply to a product, process or production method.” As Proposition 37 imposes mandatory

labels, Proposition 37 is a technical regulation under the TBT definitions.

TBT Article 2 sets forth several provisions against which to measure technical regulations for compliance with the TBT Agreement. It states, “Members shall ensure that technical regulations are not prepared, adopted or applied with a view to or with the effect of creating unnecessary obstacles to international trade. For this purpose, technical regulations shall not be more trade-restrictive than necessary to fulfill a legitimate objective, taking account of the risks non-fulfillment would create. Such legitimate objectives are, inter alia, ... the prevention of deceptive practices; protection of human health or safety, animal or plant life or health, or the environment. ...”

TBT Article 2.2

Article 2.2 expressly lists three legitimate objectives: national security requirements; protection of human health or safety, animal or plant life or health, or the environment; and prevention of deceptive practices.

As for health and safety, Proposition 37 does not provide a label giving consumers information about how to use a product safely or a safe consumption level or any other health and safety data—unless the warning-style label against genetically-modified food itself is considered a valid warning. But, as discussed with regard to the SPS Agreement, there is no scientific evidence available to indicate that genetically-modified foods have negative health or safety implications for humans, animals, or the environment. Proposition 37 does not assert a legitimate health and safety objective under TBT Article 2.2.

Prevention of Deceptive Practices—Pro and Con

Proposition 37 can be defended as upholding the third legitimate objective—prevention of deceptive practices. Indeed, the Proposition is titled the “California Right to Know Genetically

Engineered Food Act,” indicating that labels will assist California consumers in knowing what they are purchasing and avoiding purchases that they desire to avoid.

Under the WTO Agreements, the United States has the duty to ensure that local governments (California) comply.

Those who would challenge Proposition 37 for noncompliance with the TBT Article 2.2 will argue that Proposition 37 is not a protection against deceptive practices. Opponents can point to the structure of the proposed Act and its exemptions to provide evidence that Proposition 37 will actually confuse consumers more than inform them accurately. Proposition 37 exempts foods that lawfully have the USDA Organic label. Under the USDA National Organic Program (USDA-NOP), organic foods can contain traces of unintentional genetically-modified crops or ingredients without losing the organic label.

Simultaneously, those California consumers still will be eating unlabeled food products containing genetically-modified crops or ingredients at trace levels, except those products will carry the label “USDA Organic.” In other words, opponents of Proposition 37 will argue that Proposition 37 is itself the deceptive labeling practice and, thus, fails to promote a legitimate objective under TBT Article 2.2.

Proponents of Proposition 37 will respond by citing to the recent WTO Dispute Resolution Appellate Body relating to the challenge of Canada and Mexico against the United States country-of-origin label (COOL) for meat. The WTO Panel (first level) ruled against COOL on the grounds of a violation of TBT Article 2.2 because the COOL law would confuse consumers. But the WTO Appellate Body reversed this Panel ruling and determined that

COOL did provide information as a legitimate objective under Article 2.2.

Unnecessary Obstacle to International Trade

Aside from “legitimate objectives,” TBT Article 2.2 also requires that technical regulations not be “unnecessary obstacles to international trade” and “not more trade-restrictive than necessary.” Opponents of Proposition 37 will argue that it violates these TBT obligations primarily because consumers already have labels that provide the same level of consumer protection from deception. Opponents will point to the existence of the Non-GMO label and the USDA-Organic label that allow consumers to choose foods which will have minimal levels of genetically-engineered content. These Non-GMO and USDA-Organic labels are voluntary labels that do not impose legal and commercial burdens upon other food products in international trade.

TBT Article 2.1 also provides a standard against which to measure Proposition 37 by stating, “Members shall ensure in respect of technical requirements, products imported from the territory of any Member shall be accorded treatment no less favorable than that accorded like products of national origin and to like products originating in any other country.”

TBT Article 2.1

TBT Article 2.1 requires Members to treat “like products” alike and to refrain from favoring either domestic or other international “like products” as against the products of the Member bringing the Article 2.1 complaint.

Obviously, proponents of Proposition 37 consider genetically-engineered agricultural products as fundamentally different than organic and conventional agricultural products. Proponents will argue that Proposition 37 deals with genetically-engineered agricultural products that constitute a class of products of their own.

Opponents of Proposition 37 will respond with two arguments. Opponents can argue that regulatory agencies around the world have considered genetically-engineered raw agricultural products to be substantially equivalent in every regard to conventional and organic agricultural products. Opponents will argue that the substantive qualities of genetically-engineered agricultural products are “like products” and that the process producing the “like products” does not create a separate product classification. Opponents will argue “product” over “process” as the appropriate TBT Article 2.1 interpretation.

Opponents of Proposition 37 will also present a second argument. More precisely, opponents of Proposition 37 will highlight the fact that Proposition 37 imposes labels, testing, and paper-trail tracing on vegetable oils even though the oil has no DNA remnants of the crop from which the oil came. Soybean oil is soybean oil regardless of what variety of soybean the food processor crushed to produce the oil.

With regard to the TBT Article 2.1 arguments, opponents of Proposition 37 may gain support from the Canada and Mexico WTO complaints against the U.S. COOL law. Both the WTO Panel and the WTO Appellate Body determined that Canadian and Mexican meat was a “like product” to United States meat. As a “like product,” the WTO reports ruled that the U.S. COOL law violated TBT Article 2.1 by imposing discriminatory costs and burdens on meat imported into the United States.

TBT Articles 2.4 and 2.5

TBT Articles 2.4 and 2.5 provide a safe harbor for technical regulations if those technical regulations adopt international standards. However, the Codex Alimentarius Commission, the international standards body for food labels, has not created an international standard which proponents of Proposition 37 can claim as its origin and safe harbor.

Dispute Resolution Issues— Who Can Complain?

Proposition 37 raises significant and difficult questions about whether it complies with the SPS Agreement or the TBT Agreement. But even if the Proposition were in violation of these WTO Agreements, who can complain? There are four possible claimants.

Member States to the WTO Agreements

SPS Agreement Article 11 and TBT Agreement Article 14 are both titled “Consultation and Dispute Settlement.” Thereby the SPS Agreement and the TBT Agreement make explicit that Member States to these agreements can complain using the WTO Dispute Settlement Understanding (DUS) Agreement. For example, Argentina or Brazil or Canada—all likely to be affected by Proposition 37 for the export of soybeans and canola, especially for cooking oils—have the treaty right to file a complaint within the WTO dispute resolution system.

Bringing a WTO complaint is fraught with difficulties. Members must think politically and diplomatically about whether it is worthwhile to bring a complaint—even a clearly valid complaint. Members must be willing to expend significant resources in preparing, filing, and arguing WTO complaints. Finally, even if a Member prevails in the Panel or Appellate Body reports, Members recognize that its WTO remedies are indirect and possibly not fully satisfactory.

The United States

Although the United States is a Member of the WTO Agreements, the United States, in contrast to Argentina, Brazil and Canada, is not an exporting Member to California. Consequently, the United States cannot file a WTO complaint invoking the DUS Agreement against California.

But by being a Member of the WTO Agreements, the United States has ratified these treaties as part of the law of

the United States, transforming these treaties into the supreme law of the land under the U.S. constitution. Moreover, under the WTO Agreements, the United States has the duty to ensure that local governments (California) comply with the WTO Agreements. Therefore, the United States has the legal authority to challenge Proposition 37 in order to protect its supreme law of the land and to avoid violating its WTO obligations.

Farmers, Biotechnology Companies and Other Opponents of Proposition 37

Opponents of Proposition 37 are likely to challenge Proposition 37 immediately if California voters adopt it in November 2012. As indicated in the introduction, these opponents are likely to bring challenges on three different grounds under the U.S. Constitution. These opponents have non-frivolous grounds upon which to pursue these U.S. constitutional challenges.

Whether these opponents can add a claim challenging Proposition 37 based on alleged violations of the SPS Agreement or the TBT Agreement is much less clear. TBT Agreement Article 14.4 highlights that the opponents will have difficulty in bringing a WTO-based challenge. TBT Article 14.4 makes clear is that Member States have the legal status (called “standing”) to bring WTO-based complaints. Citizens of Member States do not have standing to bring WTO-based complaints.

Proponents of Proposition 37 will challenge the standing of those opponents who seek to challenge Proposition 37. Proponents will seek to have this WTO-based claim dismissed because the opponents do not have a right to make a legal claim based on the WTO. Proponents will argue that standing to bring a WTO-based claim resides solely in exporting Member States or the United States.

By contrast, opponents bringing the immediate challenge containing a WTO-based claim will argue that they

are not invoking the WTO Agreements directly. Opponents will argue that they are challenging Proposition 37 to enforce the supreme law of the United States. By invoking the supreme law of the United States, opponents will hope to blunt the standing issue and to avoid dismissal of the WTO-based claim.

Food Companies and Grocery Stores

Assuming that the United States does not file a lawsuit against California and that other opponents are blocked, by the doctrine of standing, from raising WTO-based challenges, Proposition 37, if adopted in November 2012, would become California law. Thus, the first lawsuits related to Proposition 37 would come through either administrative action or a consumer lawsuit against food companies and grocery stores alleging failure to label or misbranding.

When facing administrative actions or consumer lawsuits, food companies and grocery stores will want to respond with all possible legal challenges to Proposition 37. Food companies and grocery stores will want to raise the issues of whether Proposition 37 complies with the SPS Agreement and the TBT Agreement as defenses to being found liable for administrative penalties or consumer damages.

The agency or consumer (plaintiff) bringing the lawsuit against the food company or grocery store will argue that the food company or grocery store (defendant) does not have standing to raise the WTO-based challenges. The plaintiff likely has to concede that the defendant faces an actual injury. However, the plaintiff will contest vigorously that the defendant is not within the zone of interests that the WTO Agreements mean to protect. In other words, the plaintiff will argue that the WTO Agreements only mean to protect sovereign interests and not private commercial interests.

In response to the plaintiff's standing argument, the defendant food company

or grocery store can reply that the WTO Agreements specifically contemplate allowing compensation and retaliation for injuries inflicted upon private commercial interests. Defendant would argue that it is only presenting a defense based on explicit WTO language. Moreover, defendant would argue that, if the doctrine of standing blocks the raising of the WTO-based defenses, it would face administrative actions or consumer damages (actual injury) under a law (Proposition 37) that very likely violates either the SPS Agreement or the TBT Agreement. Defendants would argue that such a result is unjust and legally indefensible because nobody should be held legally accountable under a law that may be itself demonstrably invalid.

Conclusion

This analysis reaches several conclusions about the status of Proposition 37 and the WTO Agreements:

- Proposition 37, if a sanitary or phytosanitary measure, almost assuredly violates the SPS Agreement.
- Proposition 37, if a technical regulation measure, may or may not be a violation of the TBT Agreement. Proposition 37 raises novel and difficult issues under the TBT Agreement that WTO Dispute Resolution Bodies have yet to address. Proposition 37 may become a very important dispute within the jurisprudence of WTO law and decisions.
- Proposition 37 can be challenged by WTO Member States and the United States. What is unclear is whether Members and the United States will act against Proposition 37.
- Proposition 37 presents very difficult procedural issues of "standing" if and when private parties challenge Proposition 37, alleging WTO-based claims, either immediately upon adoption by California voters or later when they face enforcement action.

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For additional information, the author recommends:

- Wüger, D. "Consumer Information on GM-Food in Switzerland and WTO Law." (Draft Paper 5, Workshop on SPS and TBT: Tools for Harmonization of National Legislations, or Tool for Fragmentation of Markets? SECO & WTI, Sept. 24, 2004). www.phase1.nccr-trade.org/images/stories/publications/ip9_working_paper_no_2.pdf
- Huemueller, D. and T. Josling. "Trade Restrictions on Genetically Engineered Foods: The Application of the TBT Agreement," in R. Evenson & V. Santaniello, *The Regulation of Agricultural Biotechnology*, CABI, 2004.
- Sheargold, E. and A. Mitchell. "Oils Ain't Oils: Product Labelling, Palm Oil, and the WTO." *Melbourne Journal of International Law* 12, (2011):396-418. http://epublications.bond.edu.au/law_pubs/474/.

Agriculture and Migration After Arizona

Philip Martin

The U.S. Supreme Court in June 2012 upheld the show-me-your-papers provision of Arizona's SB 1070 law while reaffirming the federal government's authority over immigration policy making. The Court, which in May 2011 upheld another Arizona law that required all employers to use the Internet-based E-Verify to check the legal status of new hires, may have opened the door for more states to enact laws to crack down on unauthorized foreigners. There is unlikely to be significant federal legislation immigration legislation in 2012 and perhaps not in 2013–14.

The U.S. Supreme Court accepted one and rejected three major provisions of Arizona's SB 1070, the Support Our Law Enforcement and Safe Neighborhoods Act, that aimed to push unauthorized foreigners out of the state. Federal courts had issued injunctions to block four key provisions of SB 1070 that:

- required police to verify the immigration status of everyone they encounter whom they reasonably suspect may be unauthorized;
- allowed police to arrest foreigners they believe to have committed deportable offenses;
- made it a state crime for foreigners to fail to carry registration documents;
- made it a state crime for illegal immigrants to seek or perform work in the state.

In its 5-3 decision, the Court reinforced the federal government's exclusive authority to regulate migration but allowed state and local police to determine the status of persons they "reasonably suspect" are not lawfully in

the United States. The Court warned that, if Arizona police implement this provision in ways that lead to racial profiling and civil rights violations, show-me-your-papers could be found unconstitutional.

The Court earlier upheld Arizona's Legal Arizona Workers Act that has since January 1, 2008 required Arizona employers to submit data provided by newly hired workers to Department of Homeland Security's (DHS) E-Verify system, which checks new hires against social security and immigration databases to determine if they are legally authorized to work. There is no state punishment for employers who fail to enroll in E-Verify, but employers found to have hired unauthorized workers can have their business licenses revoked. An average one Arizona employer a year has had a business license revoked in the law's first three years; none have been farmers.

DHS's U.S. Citizenship and Immigration Services (USCIS) agency, which operates E-Verify, reported that 98.3 percent of the 15.6 million employer new-hire queries submitted in fiscal year 2009–10 (FY10) were confirmed as work-authorized in less than five seconds. The remaining 1.7 percent of queries generated tentative non-confirmations, which prompt employers to inform workers in writing to contact USCIS and clear up discrepancies. About 18 percent or 47,000 employees who contacted USCIS were later confirmed as work-authorized; almost all of the remaining 218,000 employees quit. A major effect of E-Verify is to deter unauthorized foreigners without "good papers" from applying for jobs with employers who use E-Verify.

The Court's Arizona decisions may encourage more states to enact laws dealing with illegal migration. Five

states—Alabama with HB 56, Georgia with HB 87, Indiana with SB 590 and HB 1402, South Carolina with S 20, and Utah with HB 497—have laws similar to Arizona's SB 1070 (Map 1). Five other states—Kansas, Missouri, Mississippi, West Virginia, and Tennessee—considered immigration control laws in 2012 but did not enact them, awaiting the Court's decision on Arizona's law. All federal contractors and 18 states require some or all of their employers to use E-Verify, while California and Illinois enacted legislation that limits the ability of local governments to require employers to use E-Verify.

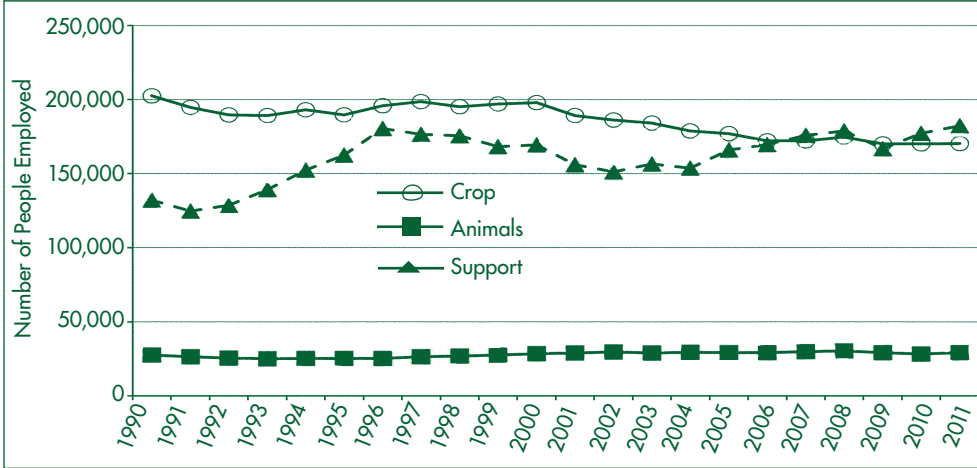
Farm Employment and Workers

The hired workers who do most of California's farm work are primarily employed to produce crops, which accounted for almost three-fourths of the state's \$37 billion in farm sales in 2010. Within crops, most hired workers are employed to produce the so-called FVH commodities, fruits and nuts (\$13.5 billion in sales in 2010), vegetables and melons (\$6.9 billion), and horticultural specialties such as flowers and nursery products (\$3.8 billion) that generated almost 90 percent of California's crop sales and two-thirds of the state's total farm sales.

California requires all employers with \$100 or more in quarterly wages to pay unemployment insurance (UI) taxes on worker earnings. Over the past two decades, UI data show stable average annual agricultural employment (NAICS 11) of just under 400,000, but crop support employment, primarily employees of farm labor contractors, recently surpassed the number of workers hired directly by crop employers (Figure 1).

Average annual employment is a measure of the number of year-round job slots, not the number of farm work-

Figure 1. Average California Crop, Animal, and Crop Support Employment, 1990–2011



ers, because of seasonal peaks and worker turnover. For example, agricultural employment averaged 389,500 in 2011, with a peak of 452,800 in June and a second peak of 449,600 in September; the low was 311,700 in January. The employment peak-trough ratio was almost 1.5, meaning that 50 percent more workers were employed in June than in January.

According to Khan et al., an analysis of individual social security numbers (SSNs) reported by agricultural establishments in the 1990s found almost three individuals for each year-round farm job, suggesting 1.1 million unique farm workers. Even though the analysis removed SSNs reported by 50 or more employers in one year and jobs that generated less than \$1 or more than \$75,000 in quarterly earnings, some observers believe that UI data may exaggerate the number of unique farm workers. If the three-to-one ratio of workers to year-round jobs is correct, there are about 1.1 million farm workers; at two-to-one, there are almost 800,000.

Mexico-U.S. Migration

For most workers, farm work is a job rather than a career. A conservative estimate is that at least 10 percent of farm workers leave the farm work force each year, so that farmers rely on an influx of new entrants to replace those who leave for nonfarm jobs or

return to Mexico. If California has a million unique farm workers, this means 100,000 newcomers are required to replace those who exit; for the 2.5 million unique hired farm workers across the United States, 250,000 newcomers a year are required.

Mexico-U.S. migration has slowed, providing fewer new entrants to replace farm workers who exit. About 10 percent of the people born in Mexico have moved to the United States, some 12 million, and 30 percent of the 40 million foreign-born U.S. residents were born in Mexico, making Mexico the largest source of U.S. immigrants. Mexican-born U.S. residents have spread throughout the United States, but almost 60 percent live in California and Texas.

Between 2005 and 2010, the Pew Hispanic Center estimated zero net Mexico-U.S. migration; that is, almost 1.4 million Mexicans moved to the United States over this five-year period and 1.4 million Mexicans (including 300,000 U.S.-born children) moved to Mexico (Figure 2). Many of those who returned to Mexico were deported, and some took their U.S.-born children with them.

There are still Mexicans moving to the United States, but returns to Mexico outnumbered new Mexican entrants to the United States by four to one in recent years. Reasons for the slowdown in

Mexico-US migration include high U.S. unemployment, border violence and more fences and agents that raise smuggling costs and risks, and improving conditions in Mexico.

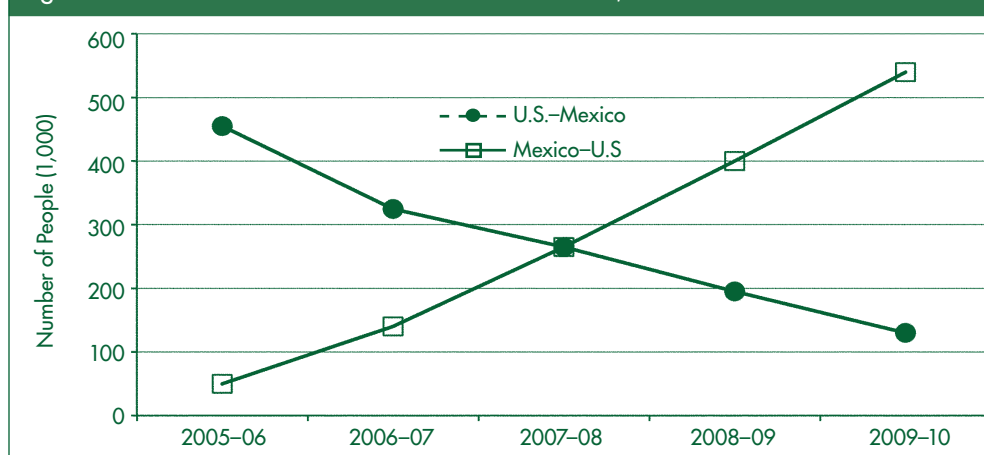
California agriculture is feeling the effects of slowing Mexico-U.S. migration because of its revolving-door labor market, which relies on newcomers from abroad to replace workers who exit. If Mexico-U.S. migration does not increase with the expected U.S. economic recovery, where will California farmers get replacement farm workers? The answer depends on immigration policy: will currently unauthorized farm workers be legalized and required to continue to work in agriculture or will replacement workers be guest workers from abroad?

H-2A and AgJOBS

The federal government has had an agricultural guest worker program for most of the past century. The current H-2A program certified 7,200 U.S. farmers to fill over 90,000 farm jobs with guest workers in FY11, including 250 California farmers to fill 3,000 farm jobs. The H-2A program requires farm employers to try to recruit U.S. workers under federal and state supervision, offer guest workers free housing, and pay them a super minimum wage called the Adverse Effect Wage Rate (AEWR) of \$10.24 an hour in California in 2012.

California farm employers assert that the H-2A program is too cumbersome and bureaucratic because of the state's diverse and perishable crops. They urge three major employer-friendly changes. First, employers would like attestation to replace certification, meaning that employers would attest or assert that they tried and failed to recruit U.S. workers while offering appropriate wages, and their attestations would allow them to recruit and employ guest workers. Second, farm employers would like to offer housing vouchers worth \$200 to \$300 a month instead of free housing, adding \$1 to \$2 an hour to

Figure 2. Annual Mexico–U.S. and U.S.–Mexico Flows, 2005–10



current wages. Third, to help offset the cost of housing vouchers, the AEWR would be rolled back by \$1 or more an hour and studied to determine how well it achieves its goal of protecting U.S. workers from any wage-depressing effects of guest workers.

The Clinton Administration blocked efforts to enact these employer-friendly changes to the H-2A program during the 1990s. However, in December 2000, farm employer and worker advocates negotiated the Agricultural Job Opportunity Benefits and Security Act (AgJOBS), which would legalize currently unauthorized farm workers and make these three employer-friendly changes to the H-2A program. They hoped that Congress would enact AgJOBS in the waning days of the Clinton Administration, but AgJOBS was blocked by those opposed to “amnesty.”

Most farm employers and worker advocates continue to urge enactment of the 12-year old AgJOBS bill. Senator Dianne Feinstein (D-CA) introduced a version in 2009 that would grant Blue Card temporary legal status to up to 1.35 million unauthorized foreigners who did at least 150 days or 863 hours of farm work in the 24-month period ending December 31, 2008. If Blue Card holders continued to do farm work over the next three to five years, they and their families could become legal immigrants. AgJOBS’s employer-friendly changes to the H-2A program include

the Big 3 desired by farm employers: attestation, housing vouchers, and a reduced AEWR.

Farm employers and workers today are in a period of uncertainty. There is unlikely to be any immigration reform that includes earned legalization or amnesty in 2012, and legalization may face continued obstacles in a Republican-controlled House in the next Congress. However, employer-friendly changes to the H-2A program or a new guest worker program could accompany a federal mandate that all employers use E-Verify to check the legal status of newly hired workers. Representatives who favor mandatory E-Verify have proposed new guest worker programs administered by USDA rather than the Department of Labor (DOL) that include attestation, reduced or no housing requirements, and lower minimum wages without legalizing currently unauthorized workers.

Conclusions

California is at another of its periodic farm labor crossroads. Most hired workers are not authorized to work legally in the United States. Avoiding the risk of enforcement by hiring workers via labor contractors and other intermediaries may have reached its limits, as farm employers report increased difficulty recruiting workers directly and note that many contractors are supplying

fewer workers than requested.

If there were a serious farm labor shortage, the most likely government response would be to roll back H-2A regulations on a short-term emergency basis, perhaps waiving supervised recruitment of U.S. workers and relaxing the free-housing regulations. Some farmers planning for a future of fewer and more expensive workers are developing labor-saving machines and mechanical aids that raise worker productivity, while others are hoping that legalization and easier access to guest workers can maintain the labor status quo.

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Hertz, T. and P. Martin. 2012 “Immigration and Agriculture.” *Choices* (2nd Qtr). www.choicesmagazine.org/choices-magazine/theme-articles/immigration-and-agriculture.

Khan, A., P. Martin, and P. Hardiman. 2004. Expanded production of labor-intensive crops increases agricultural employment. *California Agriculture*. January-March. Pp35-39. <http://californiaagriculture.ucanr.org/landingpage.cfm?article=ca.v058n01p35&fulltext=yes>.

Passel, Jeffrey. “Migration Patterns 2012: New Data, New Results, Implications for the Future.” April 26, 2012. (SOURCE??)

Martin, P. “AgJOBS. Provisions, Eligibility.” *Rural Migration News* 15(3). July 2009. http://migration.ucdavis.edu/rmn/more.php?id=1466_0_4_0.

Does Local Production Come at the Expense of Food Safety?

Steven Sexton

This article considers the implications for food safety of growing reliance on local food production. Higher costs to regulators from less-concentrated markets and the incentives of firms and retailers suggest that the level of food safety provision is likely to fall, and the costs of providing it are likely to rise.

Just months after tainted cantaloupes caused the deadliest U.S. outbreak of foodborne illness in a century, 270 consumers were sickened and three killed this summer by cantaloupes carrying *Salmonella*.

The FDA has linked the contaminated cantaloupe to unsanitary conditions at Chamberlain Farms of Owensville, Indiana. Like the Holly, Colorado farm implicated in the deadly *Listeria* outbreak in cantaloupes last fall, Chamberlain is a relatively small grower in a region with no obvious comparative advantage in cantaloupe production. Moreover, climatic conditions predispose the area to bacterial contamination.

Recent outbreaks of foodborne illness and an increase in infections from most pathogens monitored by the CDC in 2011 have occurred alongside growth in consumer demand for locally sourced produce that has led even multinational discount retailers like Walmart to seek out local suppliers. Growing reliance on local production sacrifices the benefits of specialization according to comparative advantage and scale economies that more concentrated production affords. In addition, dependency on smaller, local producers may come at the expense of food safety.

Large Firms Are More Efficient at Reducing Risk

Voluntary and regulation-induced investments in food safety, including process control, inspection, and traceability, often include fixed-cost components and “lumpiness” that gives an advantage to larger firms, which can spread the costs over larger quantities of production. High fixed costs of food safety can cause small firms to exit. Food safety processes and technologies appear to impose higher costs per unit of output on small operations. This fear was articulated during the 1998 implementation of pathogen reduction and Hazard Analysis and Control Point (HAACP) systems in the red meat- and poultry-slaughter industries. More recently, small farms successfully lobbied for exceptions to similar rules for produce growers under the Food Security Modernization Act, citing concern that the higher cost of regulatory compliance to small operations would force local and direct-to-consumer operations to exit.

Though there are few empirical analyses of the cost of food safety investments among produce growers, studies of the 1998 regulatory changes in the meat packing industry have documented a considerable disadvantage to small firms. An *ex ante* analysis of the planned regulations, for instance, estimated the costs to small beef slaughter plants as a share of the value of shipments would be 100 times greater than the cost to large firms. Many of the costs associated with the regulations, including monitoring, record-keeping, and sanitation equipment are fixed, at least over a range of outputs, so that the cost per unit of production decreases in the scale of production. Moreover, the Economic Research Service (ERS) of the USDA estimated

that smaller plants had variable and fixed costs of regulatory compliance that were three and six times higher, respectively, than those of larger firms.

Output inspection costs, for instance, may vary proportionally to output over a range of outputs, so that inspection technology exhibits constant returns to scale and does not disadvantage small firms. Plant inspection costs, however, are largely fixed, so that average plant inspection costs decline with output, favoring larger operations. Large firms, for instance, may find it optimal to operate their own testing laboratories and, thus, exploit increasing returns to scale. Small firms, however, are likely to contract testing out to third parties and, consequently, bear a relatively high cost per unit output. An ERS survey of the meat- and poultry-processing sectors concluded that testing costs, in particular, were higher for smaller firms.

Likewise, the cost of regulatory enforcement exhibits increasing returns to scale because of the fixed costs associated with inspection of a firm’s facilities and procedures. These include travel costs and testing that increase in the number of facilities but not in the level of output. Thus, given a fixed enforcement budget, a decline in industry concentration resulting from demands for local production is likely to lower the level of safety.

Large Firms Have Greater Incentive to Reduce Risk

Food producers face food safety costs imposed by regulation, but may also make voluntary investments in pathogen control in order to meet contractual demands of buyers, reduce the risk of crop losses, avoid liability judgments, and protect brand value. Optimal private investment in *ex ante* food safety mechanisms equates

the marginal expected reduction in damage and liability costs to the marginal cost of private risk reduction. This condition is likely to induce disproportionately greater investments from large operations than from small ones. The USDA estimated that as much as two-thirds of the reduction in *Salmonella* contamination in meat and poultry facilities is attributable to private voluntary investments rather than regulation-induced effort.

When outbreaks of foodborne illness occur, those firms responsible for contamination are typically obligated to recall all or some of the affected product. The risk of contamination, thus, typically includes the cost of withdrawing product from the market and lost revenue from a portion of harvest. Larger operations, therefore, have greater risk from contamination, though the risk from forgone revenues and the associated costs of product recalls are presumed to increase proportional to sales. This component of risk is likely to be scale-neutral, suggesting that the optimal private investment in food safety is independent of whether a product is produced in a concentrated industry or by many small firms.

But large firms are more likely than small operations to have brand capital, which is threatened by food scares traced to their products. The loss of a firm's good reputation can occur as the consequence of a food scare independent of the magnitude of the scare and the firm's market share. With the loss of reputation, a brand-name product would lose its price premium. Sales and margins for products produced by the firm unrelated to the food scare are also likely to suffer. The financial value of publicly traded firms has also been shown to suffer from food scares. Large firms with good reputations, therefore, stand to incur losses from lapses in food safety that are disproportionately higher than small firms.

Losses to a firm from an outbreak of foodborne illness often also include product liability for related illness and death. Judgments can easily reach into tens of millions of dollars. If food contamination occurs in the field, then the magnitude of the outbreak may be independent of the market share of the responsible producer. However, if contamination were to occur in a processing facility, then the greater quantities handled in the facility and distributed through a wider network could cause illnesses and fatalities to be greater for outbreaks caused by larger firms.

Because large firms generally have more assets, they face greater exposure from product liability, and, therefore, demand greater protection against food contamination.

Liability is limited to the assets of the firm; thus, it increases as production increases because the assets of larger producers are greater. Limited liability explains, in part, why firms that operate in hazardous industries with latent damages tend to be smaller than firms in other industries. Divestiture is recognized as a mechanism to limit liability.

Small growers, then, face an upper bound on the risk of food contamination that lowers their incentives to invest in food safety. For instance, the Colorado cantaloupe grower whose melons are implicated in 32 deaths filed for bankruptcy in May 2012, listing its net worth at -\$400,000. The farm's owners, therefore, avoid potentially tens of millions of dollars in liability.

Because large firms generally have more assets, they face greater exposure from product liability, and, therefore, demand greater protection against food contamination. Large firms and small firms alike can insure against product liability, but premiums are positively correlated with coverage limits and with past lapses in food

safety, so that large firms demand greater ex ante prevention of food contamination even if they are insured.

Large firms face more-than-proportionally greater risk from selling tainted food, and, consequently, have greater demand for food safety. They also face lower average variable costs in supplying food safety. Therefore, the optimal level of investment, which equates the marginal benefit of an incremental increase in food safety with the marginal cost of achieving it, is increasing at an increasing rate in firm size. Holding market supply of food constant, then, the provision of food safety declines as the number of producers grows.

Empirical evidence from the meat- and poultry-processing sectors indicates that firm size is an important determinant of firm-level investment in food safety. For instance, research suggests that firm size has more impact on the adoption of safety and quality assurance practices than any other firm characteristic. Large firms are also more likely to have adopted a range of food safety technologies.

Larger Firms Internalize More Benefit from Food Safety

The losses stemming from an outbreak of food borne illness often are not limited to those firms implicated in food contamination. Indeed, food safety regulators issue broad warnings about food products irrespective of where they originated if the origin of contamination cannot be immediately identified.

For instance, when in 2006 an outbreak of E. coli was linked to consumption of bagged fresh spinach, the FDA issued a blanket warning to consumers to avoid the product altogether. Fifteen days later, the alert was scaled back to include a warning against consumption only of specific brands of spinach packaged in California on specific days, but the industry had already experienced a dramatic decline in sales. The outbreak, blamed for 199

illnesses and three deaths, cost spinach producers \$202 million in sales over a 68-week period, a 20% decline. By 2008, demand for California spinach remained below pre-outbreak levels.

Because a food scare can induce a negative demand shock, there exists a reputational externality associated with food safety provision, which, consequently, exhibits public good characteristics. The benefits of an individual firm's food safety investments accrue, in part, to competing firms. Because the firm does not capture the full benefits of its food safety provision, it will underinvest in food safety relative to the efficient level. Industry-wide private provision may be much too low.

A firm's share of the benefit from an investment in food safety, however, is increasing in its market share. The more concentrated the industry, therefore, the closer is the equilibrium level of food safety provision to the efficient level. A monopolist would internalize the full benefit of his investments, and, therefore invest in the efficient level of food safety. As the number of small firms increases, however, the equilibrium market-wide provision of food safety falls increasingly short of the efficient level.

Comparative Advantage in Agricultural Production and Agglomeration Benefits

Because agronomic and climate conditions impact the optimal handling and processing of crops, they afford some firms and regions a comparative advantage in producing safe food. For instance, the hot and dry conditions during the cantaloupe-growing season in California reduce the crop's exposure to contaminants that can be transferred to melons in wet fields. Moreover, because the dry conditions keep California cantaloupe relatively clean, most are packed directly in the field, requiring less handling and avoiding exposure to food pathogens in shed packing operations that rinse

and dry the produce. As retailers seek to market local produce, however, comparative advantage in the provision of food safety is forsaken.

The *Listeria* outbreak last summer was linked to unsanitary conditions at the Jensen Farms packing shed. And an FDA investigator identified unsanitary practices at the Chamberlain Farms packing shed that has been associated with this summer's *Salmonella* outbreak.

Concentration of production in regions with comparative advantage creates agglomeration advantages for the mutual provision and certification of food-safety practices. Because of the potential losses from food scares and the market-wide externalities from food safety investments, grower organizations have adopted voluntary process standards to mitigate risk and avoid shirking among their members. Some growers have also created marketing orders to enforce handling practices and require audits of all operations covered by the agreement. The California Leafy Green Product Handler Marketing Agreement was implemented in 2007, following the 2006 *E. coli* outbreak linked to spinach from California's Salinas Valley. The California Cantaloupe Advisory Board responded to last summer's *Listeria* outbreak by imposing mandatory certification by state auditors of all growers in the state. Such industry-wide cooperation and self policing is likely to be lost when production is fragmented and spread across wide geographical areas in the quest for local production.

Constraints on Food Retailers

Finally, food safety cannot improve as retailers make greater commitments to sourcing local products, all else being equal. A binding constraint on the location of suppliers must either be satisfied by relaxing other constraints or accepting lower profits, not least because fixed transactions costs of ensuring safety among suppliers increases in their number. Some firms may respond by relaxing food safety constraints in

order to market local products and maintain profits. Walmart, for instance, announced a major commitment to buying local in 2008 and was forced to recall cantaloupe from some of its stores in each of the two recent scares.

Conclusion

Consumers have exhibited growing demand for locally produced foods. However, they are also demanding safer foods. The two demands are conflicting. As local production increases, however, food safety is likely to decline as small firms optimally invest in disproportionately lower levels of food safety than larger firms because of higher average costs of food safety provision and less financial risk from food contamination. Local production also sacrifices comparative advantage in the production and certification of food safety related to agronomic and climatic conditions that impact handling practices.

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For further reading, the author recommends:

M. Ollinger and D. Moore. "The Interplay of Regulation and Market Incentives in Providing Food Safety." *Economic Research Report No. 75*. The Economic Research Service, USDA. July 2009.

M. Ollinger, M. Muth, S. Karns, and Z. Choice. "Food Safety Audits, Plant Characteristics, and Food Safety Technology Use in Meat and Poultry Plants." *Economic Information Bulletin No. 82*. Economic Research Service, USDA. October 2011.



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