

Food systems and social equity

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While there are multiple definitions of social equity, the frame I use relates to a fair and just distribution of outcomes, resources, and power. The indicators and measures listed here are only illustrative, not exhaustive, and some are out of date. Indeed, there is much “missing data” in measures of social equity in the food system, in part because a very small percentage of research funding is directed to social-science questions.ⁱ The fundamental question for sustainable agriculture remains, “Who and what do we want to sustain?”ⁱⁱ

Measures and indicators	Data sources and limitations
<p>FOOD ACCESS EQUITY</p> <p>Indicators:</p> <p>Numbers of hungry, food insecure, or malnourished people worldwide</p> <p>Numbers of people who die each year due to hunger and hunger related causes</p> <p>Cost of food relative to income for people at different income levels</p> <p>Trends and conditions:</p> <p>In 2007, there were 923 million chronically hungry people worldwide. Hunger figures for 2007 show a 75 million-person increase from FAO’s estimates for 2003 to 2005 (FAO 2008).</p> <p>An estimated 24,000 people die every day as a result of hunger and undernutrition (WFP 2007).</p> <p>Every year that hunger continues at current levels costs five million children their lives (FAO 2006). 53% of childhood deaths worldwide have undernutrition as a synergistic cause (WFP 2007).</p> <p>In 2007 almost 11% of US households – or 36 million people – were food insecure (Nord et al. 2008).</p>	<p>Data sources:</p> <p>Global measures of hunger (FAO 2008) and U.S. measures of food insecurity (Nord et al. 2007).</p> <p>Numbers of people who die from hunger worldwide (World Food Programme 2007).</p> <p>Numbers of children who die from hunger worldwide (FAO 2006; World Food Programme 2007).</p> <p>Limitations:</p> <p>No U.S. government data exists on what percentage of household budgets is spent on food purchases.</p> <p>No U.S. government data exists on experiences of hungry people.</p>

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<p>Food insecurity was even more pronounced in low-income, single mother, African American, and Hispanic households (38%, 30%, 22%, and 20%, respectively) (Nord et al. 2008).</p>	
<p>INCOME AND WEALTH EQUITY</p> <p>Indicators:</p> <p>Distribution and wages of agrifood employees by occupation, gender, and ethnicity</p> <p>Assets owned by people in various aspects of the food system, and compared to those outside the food system</p> <p>Allocation of public funds to those working in the food system</p> <p>Trends and conditions:</p> <p>Average net farm operator household income is forecast to be \$85,140 in 2009 (USDA and ERS 2009).</p> <p>In 2007, the latest year for which there is an estimate of U.S. household income, average farm household income was 27.5 percent higher than U.S. average household income (USDA and ERS 2009).</p> <p>In 2007, farmers and ranchers reported a mean annual personal income of \$42,480. This is 4.4% higher than the U.S. average personal income. Comparatively, food processors reported \$24,870, food preparation and service employees reported a mean annual income of \$19,440, and farmworkers in crops, nurseries, and greenhouses reported \$18,350. The average annual personal incomes for these professions were 39%, 52%, and 55% lower than the U.S. average personal income</p>	<p>Data sources:</p> <p>Average income by agrifood system sector (U.S. Bureau of Labor Statistics 2009).</p> <p>Weekly earnings, poverty levels, and yearly income of U.S. farmworkers (Kandel 2008; U.S. Department of Labor 2005).</p> <p>Farm household incomes (USDA and ERS 2009).</p> <p>Government farm payouts from 2007 U.S. Census of Agriculture (USDA 2009).</p> <p>Limitations:</p> <p>Although it is possible to find data on wages in various food- and agriculture-related occupations, the US government does not break this information down in an easily accessible way in terms of race or gender.</p> <p>The US government does not collect data on the amounts of farm labor employed by farms of various sizes or incomes.</p> <p>Farm work is usually part-time and temporary. It could be argued that expecting livable annual wages from working only part of the year is not reasonable, but in fact, farmworkers may not have opportunities to supplement their wages from farm work with other work.</p>

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<p data-bbox="186 182 781 216">in 2007 (U.S. Bureau of Labor Statistics 2009).</p> <p data-bbox="186 300 776 407">Poverty among farmworkers is more than double that of all wage and salary employees (Kandel 2008).</p> <p data-bbox="186 453 794 716">For the two calendar-year period 2000-2001, the average farmworker personal income range from all sources, as well as from farm work only, was \$10,000 - \$12,499. The average total farmworker family income range was \$15,000 - \$17,499 (U.S. Department of Labor 2005).</p> <p data-bbox="186 762 769 869">The 1.5% of U.S. farms with the highest sales employ over half of the farm labor (Slesinger and Pfeffer 1992).</p> <p data-bbox="186 915 748 1064">In 2007, 57% of government farm payouts went to the wealthiest 19% of producers (USDA 2009). No subsidies are paid to farm workers.</p> <p data-bbox="186 1110 792 1218">Of those who work in the agrifood sector, only seven percent are farmers and farm workers directly involved in agricultural production.</p> <p data-bbox="186 1264 781 1526">The other 93 percent of agrifood system workers have jobs in other sectors of the system: transportation (three percent), food processing (9 percent), equipment and inputs (19 percent), food service (35 percent), and food wholesaling and retailing (38 percent) (derived from Edmondson 2003).</p> <p data-bbox="186 1572 764 1722">More than 85 percent of all of the labor that produces California's crops and livestock is performed by hired workers (Villarejo et al. 2000).</p>	<p data-bbox="826 300 1393 600">Farmworker average incomes have been reported by US government agencies as ranging anywhere between \$10,000 and \$18,000 per year (U.S. Department of Labor 2005; U.S. Bureau of Labor Statistics 2009), while academics have reported farmworker salaries to be as low as \$7,500 per year (Shreck et al. 2006).</p>

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<p>CONCENTRATION</p> <p>Indicators:</p> <p>Distribution of ownership of farms and farmland</p> <p>Distribution of ownership of farms and farmland by race and gender</p> <p>Concentration of farmland, agrifood market, and grocery retailing</p> <p>Trends and conditions:</p> <p>Nearly half of U.S. land is farmland, over one billion acres; in 1987, 4% of owners owned 47% of farmland (U.S. Bureau of Census 1988).</p> <p>Only 3.6% of principal operators manage 54% of farmland (USDA 2009).</p> <p>Women own 13% of U.S. farms and 5% of U.S. farmland. (USDA 2009).</p> <p>Latinos own 2% of U.S. farms and 1% of U.S. farmland (USDA 2009).</p> <p>African Americans own 1% of U.S. farms and less than 0.5 percent of all U.S. farmland acreage (USDA 2009).</p> <p>By contrast, nearly all hired farm laborers are people of color. For example, In 2001-2002, 83% of crop workers identified themselves as Hispanic (U.S. Department of Labor 2005).</p> <p>In the U.S., concentration in grocery retailing has doubled since 1997; five companies now control almost 50% of grocery retailing. In 2006, Wal-Mart's sales were nearly twice as high as Kroger, the second-runner up (Hendrickson and Heffernan 2007).</p>	<p>Data sources:</p> <p>Distribution of farmland, percentage of farmland owned by women and people of color from the 2007 U.S. Census of Agriculture (USDA 2009).</p> <p>Ethnicity of U.S. farmworkers (U.S. Department of Labor 2005).</p> <p>Concentration in commercial seed companies, grocery retailing, food processing, beef, pork, and chicken production (Hendrickson and Heffernan 2007).</p> <p>Limitations:</p> <p>Although it is possible to find data on the percentage and acreage of farmland owned by women and people of color, the U.S. government does not break this information down in an easily accessible way in terms of average size of agricultural property held by women and people of color compared to property held by European-American men.</p> <p>The U.S. government does not collect data on the amounts of farm labor employed by farms of various sizes or incomes.</p> <p>The U.S. Department of Agriculture reports the majority of the findings from the Census of Agriculture based on farm principal operators, not owners. Therefore, there is no recent data collected by the U.S. government on the distribution of farm and farmland ownership.</p>

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<p>Three U.S. companies mill 55% of the flour, four companies process 80% of soybeans, four companies slaughter over 80% of beef (Hendrickson and Heffernan 2007). These figures have increased significantly in the past 20 years.</p> <p>Globally, four seed firms, DuPont (Pioneer), Monsanto, Syngenta and Limagrain control about 29% of the world market for commercial seeds (Hendrickson and Heffernan 2007).</p>	
<p>LABOR CONDITIONS</p> <p>Indicators:</p> <p>Working conditions of workers in the food system—on farm, in processing plants, in retail, etc.</p> <p>Job security, benefits, human rights, and pensions of food-system workers</p> <p>Illness and injury rates of food-system workers</p> <p>Living conditions, ages, and life expectancy of food-system workers</p> <p>Trends and conditions:</p> <p>Among surveyed farmworker housing units, 17% were severely substandard and 16% were moderately substandard (Housing Assistance Council 2001).</p> <p>In 2007, the rate of injury and illness of the occupation ‘support activity for crop production’ in the U.S. was higher than the rate of injury and illness across all occupations (U.S. BLS).</p> <p>In a study of California farmworker women, 85% said they had been exposed to pesticides</p>	<p>Data sources:</p> <p>Farmworker housing availability and conditions (Housing Assistance Council 2001).</p> <p>Rates of illness and injury for farmworkers, meatpackers (U.S. BLS)</p> <p>Farmworker exposure to pesticides (Reeves et al. 2003). Numbers of child farmworkers (Kandel 2008; Human Rights Watch 2000).</p> <p>Farmworker slavery (Coalition of Immokalee Workers 2008; U.S. Department of Justice 1999).</p> <p>Limitations:</p> <p>Although data exists on farmworker access to facilities and housing conditions, the data is not current and is not collected by the US government on a regular basis.</p> <p>The exact number of migrant and seasonal workers under the age of 18 is not precisely known because of gaps in the available data. Since children under the ages of 14 and 15 can work legally on a farm, both the CPS and NAWS undercount the number of children</p>

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<p>at work, but only half reported the exposure their employer (Reeves, et al. 2003).</p> <p>Children under 18 made up 5.5 percent of the hired crop farmworker labor force in the U.S. (Kandel 2008).</p> <p>Some studies estimate there are between 300,000 and 800,000 child farmworkers laboring in the United States (Human Rights Watch, 2000).</p> <p>In several federally prosecuted cases of tomato pickers in the Southeastern U.S., farmworkers have been enslaved, forced into debt-servitude, beaten, sexually harassed, charged rent for living in trailers where 8-10 workers live together, and have had their families threatened (Coalition of Immokalee Workers 2008; U.S. Department of Justice 1999).</p>	<p>working in agriculture.</p> <p>Deaths and hospitalization due to pesticide exposure and injuries to farmworkers, food system workers, and their family members are under-reported in all national data sets. Pesticide exposures are often underreported due to doctors' failure to recognize and/or report pesticide-related illnesses; failure of insurance companies to forward doctors' illness reports to the proper authorities; or farmworker reluctance to seek medical attention for suspected pesticide exposure (Reeves, et al. 2002).</p> <p>The effects of pesticide exposure and musculoskeletal injury are often difficult to study: they may be cumulative, long-term and difficult to attribute precisely to exposure during a given time period.</p>
<p>EQUITY IN DECISION MAKING</p> <p>Indicators:</p> <p>Representation of women and people of color in leadership and decision making roles in agrifood system</p> <p>Representation of women and people of color in USDA and agricultural policy decision making roles</p> <p>Representation of women and people of color in food and agriculture research</p> <p>Trends and conditions:</p> <p>In 1993, of the 18 members of the Senate Committee on Agriculture, there were no women, no African Americans, and no Latinos (Dunn 1993).</p>	<p>Data sources:</p> <p>Representation of women and people of color in Senate Committee on Agriculture; representation of women and people of color in senior-level positions in USDA (Dunn,1993; U.S. Office of Personnel Management 1992).</p> <p>Limitations:</p> <p>There have been no new data reported on distribution of power by race/ethnicity or gender in the USDA, Senate Committee on Agriculture, House Committee on Agriculture, or U.S. government agricultural agencies since the early 1990s.</p>

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<p>In 1992, 98% of senior-level USDA employees were white and 82% were male; rates for senior executives were even higher (United States Office of Personnel Management 1992).</p> <p>The Congressional Quarterly's 1993 listing of agricultural agencies shows that 90% of those in powerful positions such as director, administrative officer, assistant secretary, and chairperson were men (Dunn 1993).</p>	

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ⁱ R&D expenditures in U.S. colleges and universities for sociology and other unclassified social sciences made up only 2.2% of total R&D expenditures in 2007. From 1973 to 1996, the amount of funding going toward the social sciences dropped by 40% (from 8.0% in 1973 to 4.8% in 1996 of total federal/nonfederal funding sources). Although a shift of 1 percentage point among academic R&D fields may appear small, in 1996 one percentage point involved \$230 million.

ⁱⁱ According to the U.S. Department of Agriculture, the problems facing rural America are largely due to social, economic, and cultural conditions and, as such, "cannot successfully be addressed solely with the knowledge generated by the biological or agricultural sciences" (U.S. Department of Agriculture 1993: 48). However, this has not translated into funding for social issues research. For example, in 1987 only one percent of USDA research funds was spent on projects in sociology or anthropology (National Science Foundation 1989). Support for social science research in agriculture declined further between the 1980s and the 1990s (U.S. Department of Agriculture 1993).