

Decoupled Payments and Farm Labor

Farm labor market effects have not been as prominent as investment and risk effects in the public debate over agricultural income transfers; however, they also contribute to understanding whether PFC payments affect production. Increased income and wealth increase a household's ability to "consume" leisure and reduce work hours, working against the objectives of some income transfer programs if they discourage labor force participation.⁶ Changes in the labor and leisure choices of farm households due to decoupled payments can potentially reduce farm labor supply and aggregate farm output, an outcome that would tend to support world commodity prices. On the other hand, farmers are sometimes perceived to be pursuing a vocation or a lifestyle choice, and it might be argued that it would be unlikely for them to change their onfarm hours as their wealth increases. They may even increase onfarm work if it were considered to have leisure attributes.

Decoupled Payments and Recipients' Farm Labor Supply

One-third of farm households receiving PFC payments work entirely on farm, but most participating households work in varying amounts both on- and off-farm (fig. 12).

⁶Leisure is a difficult concept to measure. Nonwork hours are often aggregated into a single category called "leisure" that in fact typically includes many activities that are not purely recreational, such as self-maintenance and, particularly for women, household chores and childcare. Some labor economists use instead the terms "nonmarket activities" or "nonmarket time."

Any adjustments in their leisure hours will reflect attempts to optimally allocate total labor hours across the two job markets.⁷ This is a "tripartite" household labor supply decision—the allocation of hours among leisure and onfarm and off-farm work. Any increase in hours of leisure by an operator or spouse leads to compensating changes in hours worked in onfarm and/or off-farm work.

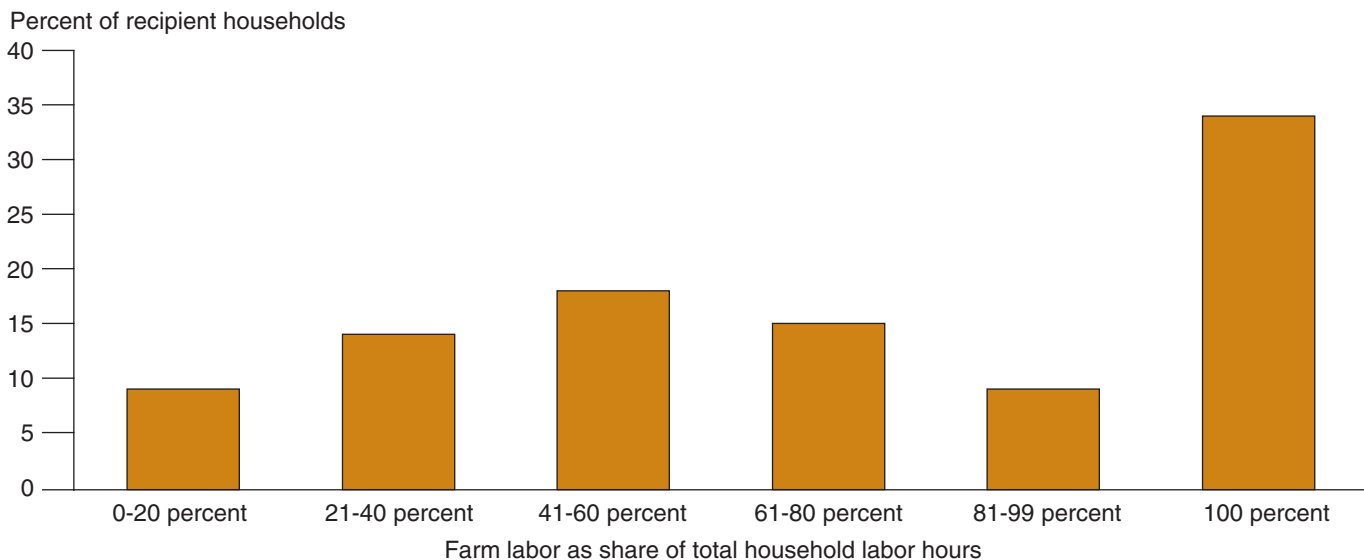
As decoupled payments increase household income and hours of leisure, hours worked might be expected to decline onfarm and off-farm. However, it is easy to imagine circumstances that would lead all adjustments to occur in just one of the household's jobs. For example, off-farm labor could be "lumpy" in that it may be difficult to make small adjustments in work hours, perhaps due to seasonality or eligibility for benefits. However, analysis of ARMS data on participants' household labor supply shows wide variation in the share of hours worked per week off-farm, suggesting that off-farm employment is flexible enough to allow for changes in response to an increase in leisure hours due to an income transfer (Ahearn, El-Osta, and Dewbre). Likewise, onfarm work hours might be inflexible, resulting in all adjustment to increased leisure occurring in off-farm work.

Analysis of the leisure and work choices of participating U.S. farmers during 1998-2000, excluding those on

⁷See Findeis for a theoretical treatment of farm households that are linked to off-farm labor markets, in which she shows that an income transfer reduces total work time.

Figure 12

PFC recipient households show diversity in share of total hours worked on farm



Source: ARMS, 2001.

retirement or lifestyle farms, shows that an increase in farm household incomes from decoupled payments was associated with greater use of leisure time (Dewbre and Mishra). Operators and their spouses whose only job was agricultural production reduced their annual agricultural labor by 1.4 hours per \$1,000 of PFC payments, while those who worked off-farm as well reduced their agricultural labor by 1 hour per \$1,000 of PFC payments (table 4). Because the average PFC payment was about \$9,000, the labor market effects found in the Dewbre and Mishra study are extremely small. Furthermore, the substitution of capital for labor in production may also occur and further minimize the negative production impact.

The Life Cycle in Farm Labor and Ownership

Certain caveats apply to the labor market analysis just described. Foremost is that these aggregate farm labor

supply effects are composed of differential responses by households with different age structures. U.S. farm households receiving decoupled payments exhibit a strong life-cycle pattern in their hours of work onfarm and their pattern of land ownership. Hours worked per year increase from early adulthood, peaking in early middle age, and declining after the age of 45 (fig. 13). Similar to spending and savings behavior, a household's position in its life cycle is a significant determinant of its labor supply response to changes in income. Other things being equal, the wealth effect on demand for leisure is greater for older workers than for younger workers who face a longer time horizon over which to provide for lifetime consumption out of their current earnings and wealth.

In 2001, 43 percent of U.S. farmers receiving decoupled payments were age 55 or older compared with only 8 percent under age 35. Both life cycle considerations and tax treatment create incentives for older recipients to reduce their active involvement in agriculture and increase their leisure. Landowners can capture the full value of decoupled payments either by remaining active operators or by increasing rental rates on the acreage they rent out. Because earned income is taxed more heavily than passive income, and in some cases may reduce benefits from social security, PFCs create incentives for older landowners to reduce their active role in farming (Novak and Duffy).

ARMS data show that, as aging farmers exit active farming, they often rent their land to younger producers. This

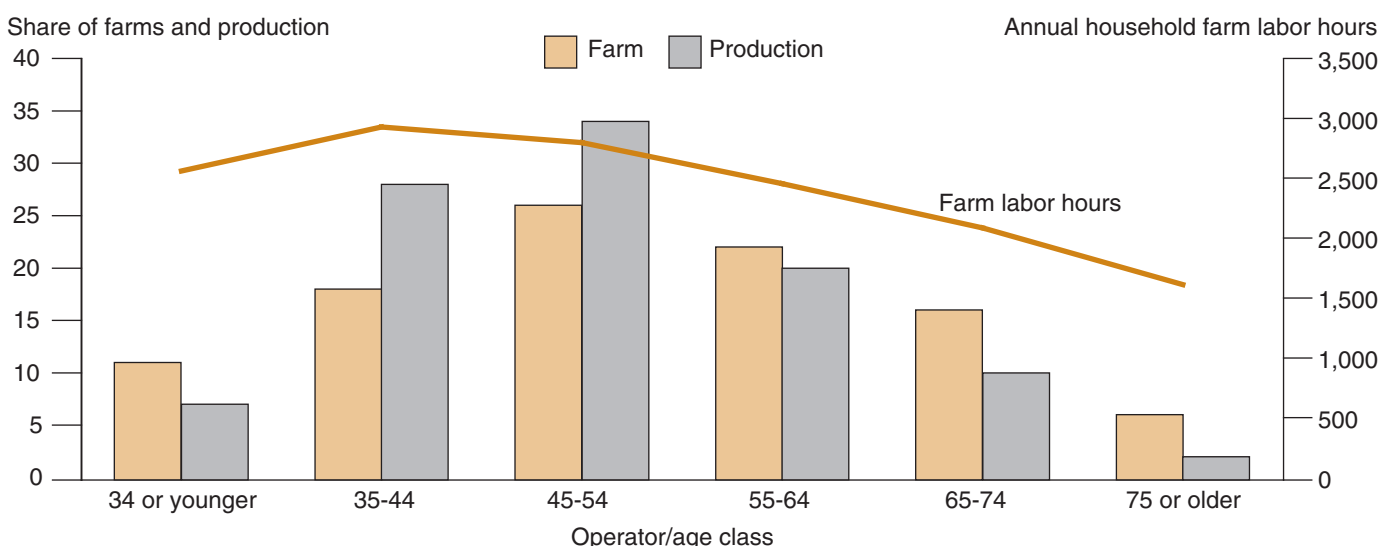
Table 4—Changes in onfarm work due to PFC payments

Off-farm work status	Change in onfarm work hours per \$1,000 PFC
	Hours
No off-farm work	
Operator	-0.5
Spouse	-0.9
Some off-farm work	
Operator	-0.4
Spouse	-0.6

Source: Dewbre and Mishra, 2002.

Figure 13

The rise and fall of PFC participants' onfarm labor hours, population share, and production over the life cycle



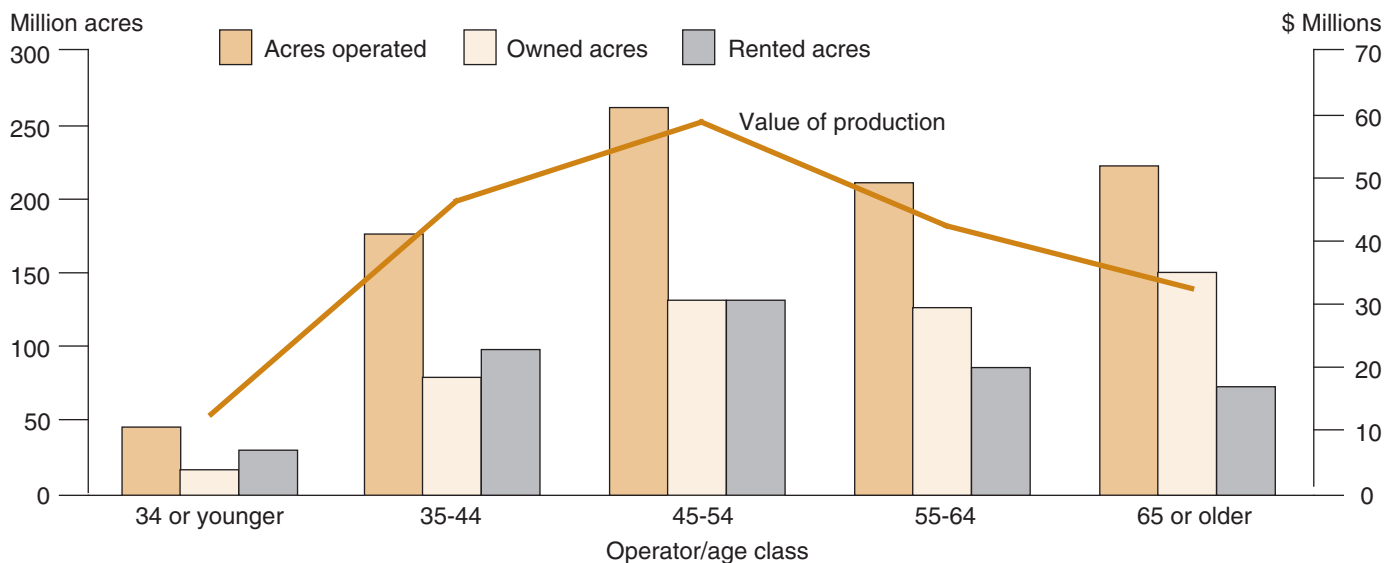
Source: ARMS, 2001.

contributes to the divergent age structure of U.S. land ownership relative to production. The life-cycle pattern evident in figure 14 shows that land rental tracks production more closely than does land ownership. Farmers accumulate assets as they age, and land plays an important role in the asset portfolio. The market for base acres has, in effect, resulted in a large share of U.S. farm production being accounted for by younger tenant-operators who produce for market returns and pass program benefits through to older landlords.

Another important determinant of farm household labor supply is the long-term decline in the labor-intensity of U.S. agriculture. This trend, in which the capital-intensity of U.S. agriculture has increased, provides ample evidence of the ease with which capital can be substituted for exiting farm labor, at least in the long run (fig. 15). Factor substitutability means that, over time, any shortrun effects of decoupled payments on farm labor supply would have impacts of a proportionately smaller scale on output.

Figure 14

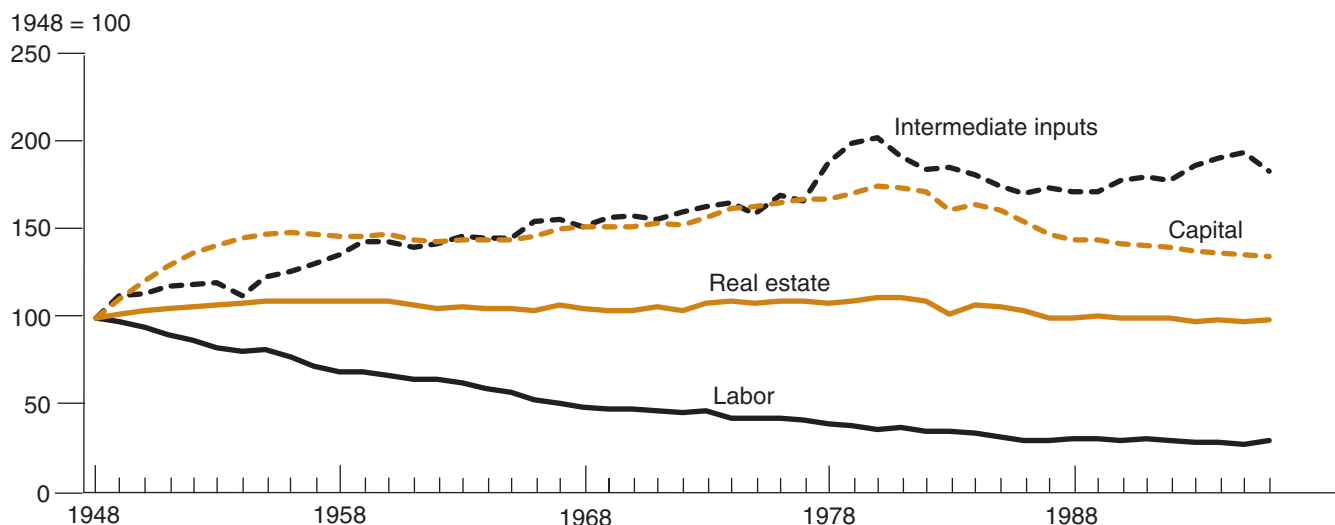
Farmland rental markets transfer production opportunities across generations



Source: AELOS, 1999, tables 2 and 8.

Figure 15

Long-term decline in U.S. labor use in agriculture, 1948-96



Source: Ahearn et al.