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AJAE appendix for "Nonpecuniary Benefits to Farming: Implications for Supply Response to Decoupled Payments"

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Note: The material contained herein is supplementary to the article named in the title and published in the American Journal of Agricultural Economics (AJAE).

Definition and Construction of Key Variables

This appendix documents the construction of the key variables (in **bold**) that were used in the *AJAE* study using the 2004 USDA Agricultural Resource Management Survey (ARMS). There are a few differences in variable names between the 2002, 2003, and 2004 ARMS surveys that are not shown. The ARMS variables (in *CAPITALS*) are not constructed by the authors, but are taken directly from the ARMS data set (some of these variables are constructed by the USDA from the raw survey data). The ARMS variables are partially defined here; further documentation about these variables and ARMS is available at: http://www.ers.usda.gov/Data/ARMS/GlobalDocumentation.htm .

(1) **off-farm labor income** = *EARNED* (income from off-farm work)

(2) *EARNED* = *OFFBUSI* + *ADJWAGE* (off-farm business income + off-farm wages)

(3) *ADJWAGE* = *A950* + *A951* + *A952* (off-farm wages + salaries + other earnings)

Note that **off-farm labor income** does not include interest and dividends, off-farm capital gains, social security and public assistance, or "other off-farm income".

(4) **on-farm labor income** = *FARMHHI* – *FARMRENT* (household income from farming – income from farmland rental)

(5) *FARMHHI* = *FARMBHH* + *FARMRENT* + *OTFBUSI* + *OPPD* + *SPPD* + *HMPD* (farm business income to household + income from farmland rental + other farm business income + wage paid to operator for farm work + wage paid to spouse for farm work + wage paid to other household members for farm work)

(6) *FARMBHH* = (*FARMBUSI*) * (*FOHHPER*/100) (farm business income * percent of farm income received by household)

(7) *FARMBUSI* = *INCFI* – *ENDEPR* – *V13A* – *OPPD* (net cash farm income - depreciation expense – income from land rented to others – income paid to operator)

(8) *INCFI* = *V16* - *V41* (gross cash farm income – total cash operating expenses)

(9) *V16* = *V3A* + *V15* (livestock and crop income plus net CCC loans + total other farm income, including government payments)

(10) **off-farm hours worked** = *R933*R935* + *R934*R936* (operator's weeks of off-farm work per year * hours of off-farm work per week + spouse's weeks of off-farm work per year * hours of off-farm work per week)

(11) **on-farm hours worked** = *OPHRS* + *SPHRS* (annual hours operator worked on-farm + annual hours operator's spouse worked on-farm)

(12) **off-farm wage** = **off-farm labor income**/**off-farm hours worked**

(13) **on-farm wage** = **on-farm labor income**/**on-farm hours worked**

(14) **wage differential = off-farm wage – on-farm wage**