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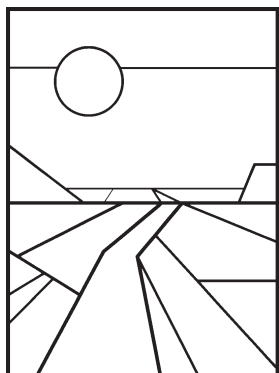
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# PURDUE AGRICULTURAL ECONOMICS REPORT

FEBRUARY 2007

## Demystifying Hoosier Entrepreneurs

*Maria Marshall, Assistant Professor and Whitney Peake, Graduate Student*

**T**he Small Business Development Administration (2006) reports that small firms represent 99.7% of all employers in the U.S., and have generated 60% to 80% of the net new jobs over the past decade. These figures suggest that the entrepreneurs behind these small businesses are essential to the economy. Despite their importance to the economy at both the state and national level, entrepreneurs really

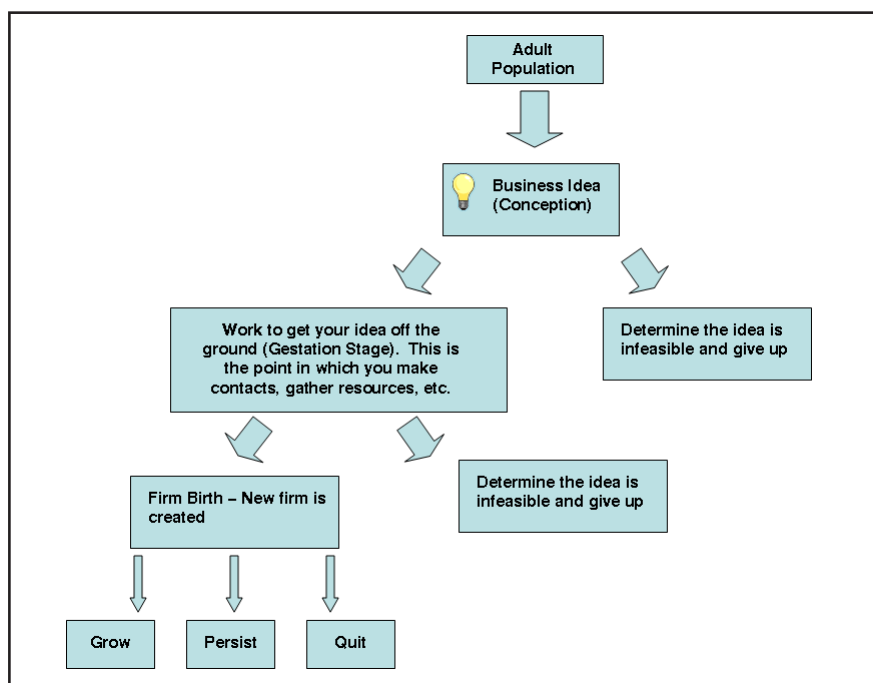
are a rather mysterious group. Some make it big, others make it small, while some don't make it past the idea stage. Since entrepreneurs come in so many shapes and sizes in terms of businesses and success rates, it is difficult to understand what exactly makes some entrepreneurs more successful than others.

One thing research has shown is that entrepreneurs cycle through a development process when cultivating

their business ideas. Below is a depiction of the development process entrepreneurs typically follow in starting a new business based on a similar diagram from Reynolds et al (2004).

Since the Gestation Stage is a time during which entrepreneurs make some of their most crucial decisions, this appears to be an opportune time during the process to gain information about the factors that contribute to business start-up.

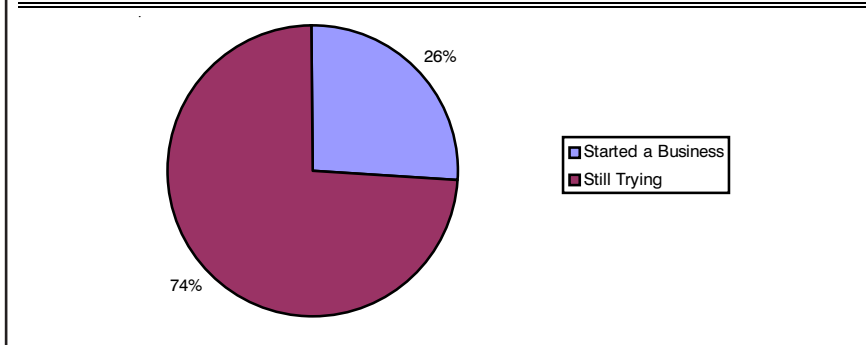
To identify entrepreneurs in the Gestation Stage, we distributed surveys to individuals attending Purdue University affiliated entrepreneurship workshops and Small Business Development Center seminars throughout Indiana. One hundred twenty-eight entrepreneurs were contacted through these workshops, and sixty-five of those individuals agreed to participate in our study. Several interesting characteristics of the respondents were determined.



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**Figure 1. Percentage of Participants Who Have Started a Business Versus Those Who Are Still Trying**



### Entrepreneur Characteristics

Of those participating in the study 26% had actually started a business, which indicates they had moved from the gestation stage into firm birth. Seventy-four percent of respondents were still working towards getting their business off the ground (See figure 1).

When the entrepreneurs were broken down by business category (figure 2), the service industry outnumbered the other business types, which is what we would expect

\* *Statistical significance of the elements discussed was determined using a logit regression model.*

since the service industry continues to increase in size within the U.S. Approximately 26% of respondents' businesses were retail-related, 66% were service-related, 6.6% were farm-related, and 6.6% were technology-related.

One important aspect to consider is the age category into which Hoosier entrepreneurs tend to fall. The 26-44 year category is the highest, consisting of nearly 70% of the entrepreneurs surveyed (See figure 3).

Within previous studies, males have generally been found to outnumber females (Reynolds et al, 2004). Indiana nascent entrepreneurs, however, differ quite markedly

from previous studies, in that females constitute over half of the respondents (See figure 4).

Other results revealed that 78% of respondents were white, 18% were black, and the remaining 4% fell into other racial categories. An astounding 88% of the entrepreneurs had completed at least some college education. Fifty-eight percent of those surveyed had attempted to create a business plan, and 42% had parents that were self-employed. Fifty-seven percent of respondents had a net worth of \$75,000 or more, while 72% had already made business resource contacts while working towards firm birth.

### Factors Contributing to Launch of a Business

Based on the data obtained from the sixty-five survey respondents, five key elements were found to significantly impact an entrepreneur in reaching the firm birth stage of the entrepreneurial process\*.

► *Presence of a major retail chain*  
Having a major retail chain, such as Wal-Mart, Target, or K-Mart was found to increase the chances of starting a business by 18%. We believe this suggests a community that has the infrastructure to support a major retail chain may also have the infrastructure to support many small businesses.

► *Education level*  
Having obtained a graduate degree was found to increase the chances of starting a business by 94.5%. Like many other studies before ours, this demonstrates that education, which is sometimes referred to as human capital, is an important factor in entrepreneurship.

► *Business plan attempt*  
Having attempted a business plan was discovered to increase the chances of starting a business by 24%, which indicates that business plan writing workshops and seminars may very well be worth entrepreneurs' time.

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➤ *Net worth*

Having a net worth of \$50,000 to \$75,000 was found to increase the chances of starting a business by 74%, while having a net worth of \$100,000 or more increase the chances of starting a business by 42%. These results indicate that money and access to assets do benefit entrepreneurs in starting their businesses. However, those with fewer assets may be looking for a way to increase their income level through investment in a small business.

➤ *Household ownership*

Owning a house was actually found to decrease the chances of starting a business by 6%. This may be linked to a hesitance to take risk, but this result is fairly uncertain since it actually runs contrary to what we would have predicted. A nation-wide study similar to ours received inconclusive results with regards to the effects of household ownership (Reynolds et al, 2004).

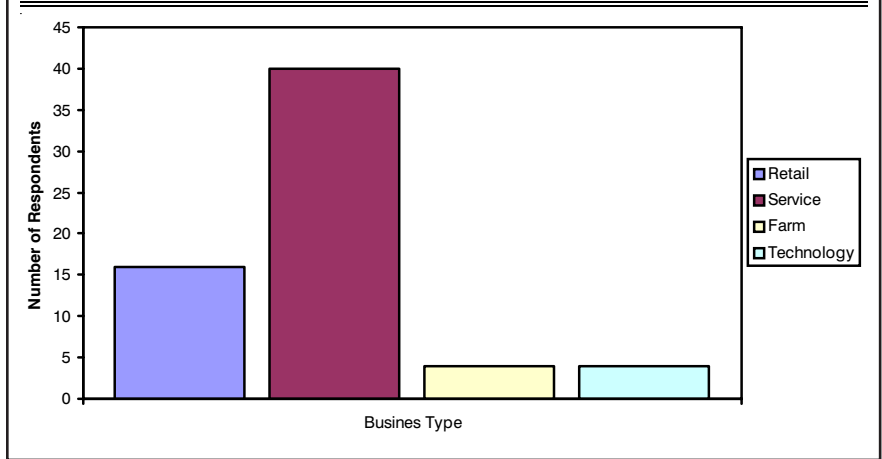
**Concluding Comment**

Although these results do not tell us everything we need to know to understand entrepreneurs in Indiana, they do give us insight into both some basic characteristics they possess and factors that impact moving the business past the idea stage. From the elements that significantly impact the likelihood of starting a business, we can make several larger generalizations. A community that has sufficient infrastructure to support some larger businesses will likely also be able to support smaller ones as well. In addition, education, planning, and financial resources are essential to entering the firm birth stage. Without those elements the business is fairly unlikely to ever get off the ground.

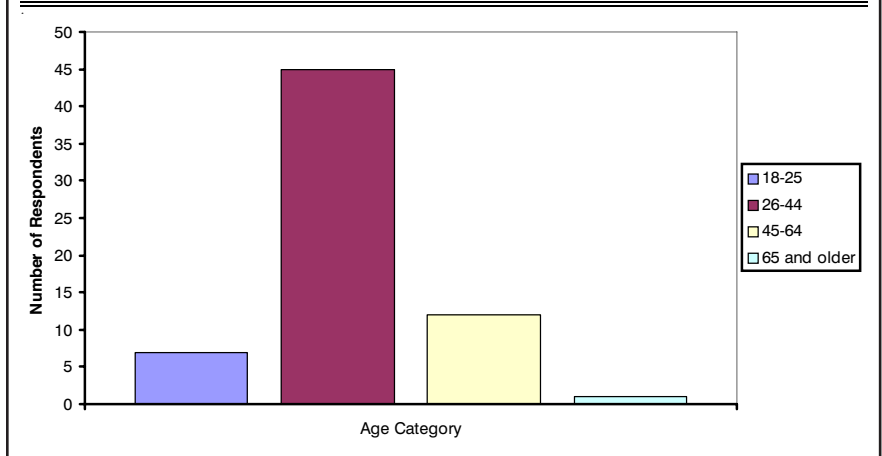
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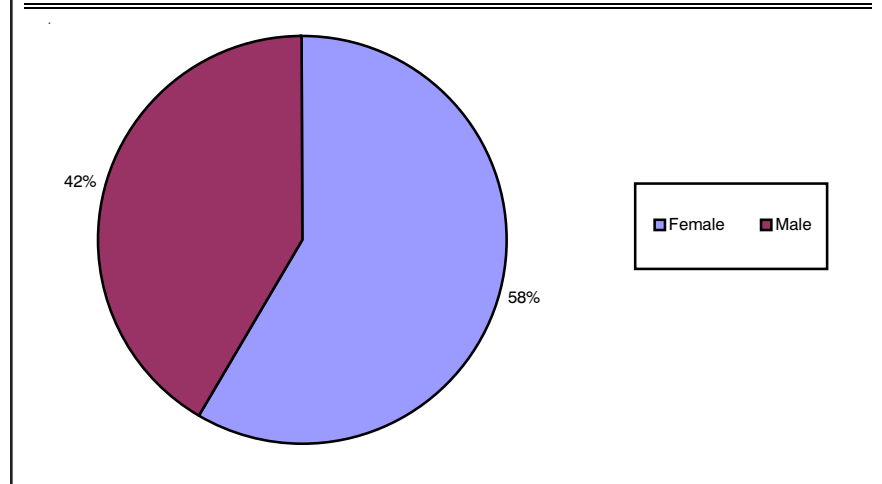
**Figure 2. Number of Respondents by Business Category**



**Figure 3. Respondents Separated by Age Category**



**Figure 4. Respondents Separated by Gender**



# Update on Domestic Production Activities Deduction and Agriculture

*George Patrick, Professor*

**T**he American Jobs Creation Act of 2004 provides an income tax deduction for taxpayers involved in domestic production activities. Crops and livestock produced in the U.S. qualify as domestic production activities. The domestic production activities deduction (DPAD) for tax years beginning in 2005 and 2006 is limited to the smallest of:

1. 3% of qualified production activity income (QPAI),
2. 3% of taxable income of a taxable entity or adjusted gross income of an individual taxpayer (computed without the DPAD), or
3. 50% of the Form W-2 wages paid by the taxpayer during the year.

The deduction increases to 6% for tax years beginning in 2007, 2008 and 2009. It further increases to 9% for tax years beginning after 2009. Thus, businesses have the opportunity, and an increasing tax-saving incentive, to adapt their business to take advantage of this deduction.

This deduction is computed and is taken as an adjustment to income on Form 1040. Thus, the deduction is for income taxes only and does not reduce earnings from self-employment. The Form 8093 combines the income and expenses for sole proprietorships and pass-through entities with the DPAD from distributions from agricultural or horticultural cooperatives to the taxpayer.

To qualify for the DPAD, a farm operation must have paid Form W-2 wages that are subject to federal income tax withholding requirements. Many farms may find that they can make legitimate wage

payments to family members (spouses and children age 18 and older) and qualify for the deduction.

Families with farm losses may also find it difficult to qualify for the deduction, especially for tax years beginning after June 1, 2006 when wages received as an employee are not considered in computing qualified production activity income. Cash rent landowners are receiving payments for the use of real property rather than the production of personal property and are not eligible for the deduction. Share-rent landowners will generally not qualify for the deduction because of the Form W-2 wage limitation.

## Qualified Production Activities Income

Qualified production activities income, commonly referred to as QPAI, is equal to domestic production gross receipts (DPGR) minus the cost of goods sold, other deductions and expenses directly allocable to such receipts, and the share of other deductions and expenses not directly allocable to such receipts. Qualifying activities include cultivating soil, raising livestock, and aquaculture, as well as storage, handling and other processing (other than transportation activities) of agricultural products.

For many farmers, their QPAI will be equal to the sum of net income reported on their Schedule F and net gain from the sale of raised livestock reported on Form 4797. However, there are a number of possible income items which may be exceptions to this, as explained below. Receipts excluded from DPGR for farmers are also discussed. The cost allocation method used may also affect the QPAI and DPAD for the taxpayer.

## Domestic Production Gross Receipts

Domestic production gross receipts (DPGR) are generally the receipts from the sale of qualified production property. For cash basis farmers, this would be the receipts from the sales of livestock, produce, grains, and other products raised by the producer. DPGR includes the full sales price of livestock (like feeder livestock) and other products purchased for resale. Gains from the sale of raised draft, breeding, and dairy livestock reported on Form 4797 also qualify as DPGR.

Sales proceeds from livestock purchased for draft, breeding, or dairy purposes would probably not qualify unless the taxpayer had purchased the animals as young stock and had a significant role in raising them. There is a safe harbor established for a significant role if direct labor and overhead expenses are 20% or more of the unadjusted depreciable basis in the qualified production property. Thus if a producer purchased an animal for \$1,000 and spent \$200 or more in labor and overhead expenses on the further growth and development of the animal, he or she would be generally considered to have a significant role in raising the animal.

Government subsidies and payments not to produce are substitutes for gross receipts and qualify as DPGR. Thus, subsidy payments that are directly linked to production, such as the loan deficiency payments (LDPs) and countercyclical payments, would qualify. Direct payments under the 2002 Farm Bill would be classed as a subsidy. Payments under the Conservation Reserve Program (CRP) are related to past production and are clearly a substitute for gross receipts. Crop and revenue insurance payments received would also be included in DPGR.

Gains from the sale of land, machinery, and equipment are excluded from DPGR. Rent received from land is specifically excluded from DPGR. Custom hire income (e.g., combining, spraying, trucking etc.) reported on Schedule F is also excluded from DPGR. Government cost-sharing conservation payments and stewardship and incentive payments probably do not qualify. Because a custom livestock feeder does not have the benefits and burdens of ownership of the animals, the receipts would not qualify as DPGR.

If less than 5% of total gross receipts from items that are not DPGR, a safe harbor provision allows a taxpayer to treat all gross receipts as DPGR. For example, a farmer has non-DPGR income of \$5,000 from planting the neighbor's no-till soybeans. As long as qualifying DPGR exceeds \$95,000, the farmer can include the \$5,000 as part of his or her DPGR, and no allocation of costs is necessary. If qualifying DPGR is \$95,000 or less, then \$5,000 custom hire income must be kept separate and expenses allocated between DPGR and non-DPGR activities, as discussed later. In computing the 5-percent limit, gross receipts from the sale of assets used in a trade or business, such as machinery and equipment, livestock, and other business assets, are not reduced by the adjusted basis of business property. However, for assets held for investment purposes, only the net gain is included.

To determine QPAI, the farmer's DPGR are reduced by the appropriate costs. If items purchased for resale (e.g., feeder livestock) are included in DPGR, the cost of these items is deducted. Directly allocable and indirectly allocable deductions, expenses or losses related to the items included in DPGR are deducted. For a farmer whose entire crop sales receipts qualify as DPGR, or who qualifies for the 5% safe harbor, QPAI would be computed by subtracting the allowable expenses and QPAI

would be equal to net farm income on Schedule F. If the farmer also had gains from the sale of raised livestock on Form 4797, QPAI would be the sum of net income from Schedule F and the gain from livestock reported on Form 4797.

#### Allocating Costs

Farmers can use the Simplified Overall Deduction Method to apportion the cost of goods sold (items purchased for resale) and other deductions between DPGR and other receipts based on relative gross receipts. For example, Ima Producer has \$85,000 of crop sales and \$15,000 of custom work income for total Schedule F receipts of \$100,000. Ima's DPGR would be \$85,000, 85% of total receipts. If Ima's total Schedule F expenses were \$60,000, 85% of the Schedule F deductions, or \$51,000 could be allocated to qualified production activities. Ima's QPAI would be \$34,000, (her \$85,000 DPGR minus the \$51,000 allocated cost).

#### Computation of the Deduction

The domestic production activities deduction for 2005 and 2006 is computed as the smallest of:

1. 3% of QPAI,
2. 3% of adjusted gross income (AGI), or
3. 50% of Form W-2 wages paid during the year.

For an individual taxpayer, AGI would include other taxable income and deductible losses. For purposes of the 3% limitation, AGI is computed without the DPAD deduction. Note that the 3% of QPAI and AGI limits increase to 6% in 2007 and to 9% in 2010.

Example: Joe Farmer operates as a sole proprietor and has gross farm receipts of \$250,000 from the sale of crops and livestock. All of Joe's receipts qualify as DPGR and he has Schedule F expenses of \$200,000,

including \$10,000 of Form W-2 wages for part-time help. Joe has net farm income of \$50,000 on Schedule F and his QPAI is also \$50,000. Assuming Joe's AGI is \$50,000 or more, his 2006 domestic production deduction would be the lesser of \$1,500 (3% of \$50,000 QPAI) or \$5,000 (50% of \$10,000 W-2 wages). For 2007, Joe's deduction would double to \$3,000.

For some farm situations, the domestic production activities deduction can be limited by Form W-2 wages. For example, assume Joe's wife, Mary, provides the part-time help on the farm and is not paid. Income and expenses, other than hired labor, are the same as in Example 3. Joe's QPAI would be \$60,000 and Form W-2 wages are \$0. Joe would not qualify for the domestic production deduction.

Joe could reasonably compensate Mary for her work on the farm and qualify for DPAD. If Joe paid Mary \$8,000, his QPAI would be \$52,000 and he would qualify for a \$1,560 DPAD. Mary's wages would be subject to social security taxes, but Joe's earnings for self-employment tax would be reduced by the amount of the wages paid. In 2007, the domestic activities production deduction increases to 6% of QPAI or \$3,120 which is still less than Form W-2 limitation. Some farms will need to make adjustments in W-2 wages to qualify for the maximum DPAD.

Wages paid in commodities, wages paid to a child (under the age of 18) of the proprietor (or a child of all of the partners), and compensation paid in nontaxable fringe benefits are not counted in determining the Form W-2 wage limitation. For tax years beginning after May 17, 2006 only those wages allocable to DPGR activities are qualified wages for the 50-percent of wages limitation.

#### Some Planning Opportunities

The DPAD for individuals is taken on Form 1040, and this provides some potential planning opportunities for only the 2005 and 2006 tax years.

Instead of being limited to receipts of a business, the methods of allocating costs discussed above can be used for the gross receipts of taxpayer on Form 1040. This may allow some taxpayers to qualify for a DPAD, or increase the amount that can be claimed as a DPAD in 2005 and 2006. Being able to claim a DPAD or a larger DPAD deduction may make filing an amended 2005 return worthwhile for some individuals.

Considering other receipts on Form 1040 might allow a farm to avoid a loss for DPAD purposes in 2005 or 2006. For example, including wages from an off-farm job could offset a Schedule F loss. Considering capital gains from the sale of farm land in determining the AGI might also create or increase DPAD. The 50-percent of W-2 wages paid and 3-percent of AGI limitations do still apply in determining the DPAD.

For tax years beginning after June 1, 2006, compensation received by an individual for services performed as an off-farm employee is not considered gross receipts for purposes of computing QPAI.

### Pass-Through Entities

S corporations, partnerships and other pass-through entities do not pay income tax, and income and expenses flow through to the shareholders or partners. Limitations are applied at the shareholder, partner or similar level for both QPAI and Form W-2 wage allocation. An individual who has been allocated QPAI from a pass-through entity is also treated as having been allocated Form W-2 wages paid from that entity in an amount equal to the lesser of:

1. The owner's applicable share of such wages paid, or
2. Two times 3% of the entity's QPAI allocated to the owner for tax years beginning in 2005 and 2006.

For tax years beginning after May 17, 2006 the QPAI limit on the wages that are allocated to the owner of an entity is repealed. Thus, QPIA for the entity wage limit will not need to be calculated for 2007 and later years for calendar year taxpayers.

### Summary

The new domestic production activities deduction is intended to stimulate employment in the U.S., but does not require taxpayers to increase the amount of labor hired. Many farmers will be eligible for this new deduction, although some may want to make wage payments to their spouse or their children 18 years of age or older to have qualified Form W-2 wages. Cash rent landowners are not eligible for the deduction and share-rent landowners will generally not qualify for the deduction because of the Form W-2 wage limitation.

The deduction starts out at the smallest of:

- 1) 3% of qualified production activity income,
- 2) 3% of adjusted gross income, or
- 3) 50% of Form W-2 wages paid.

However, the limits of the percentage of income increase to 6% in 2007 and to 9% for 2010 and later years. Taxpayers will want to maintain their eligibility for the maximum deduction possible.

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