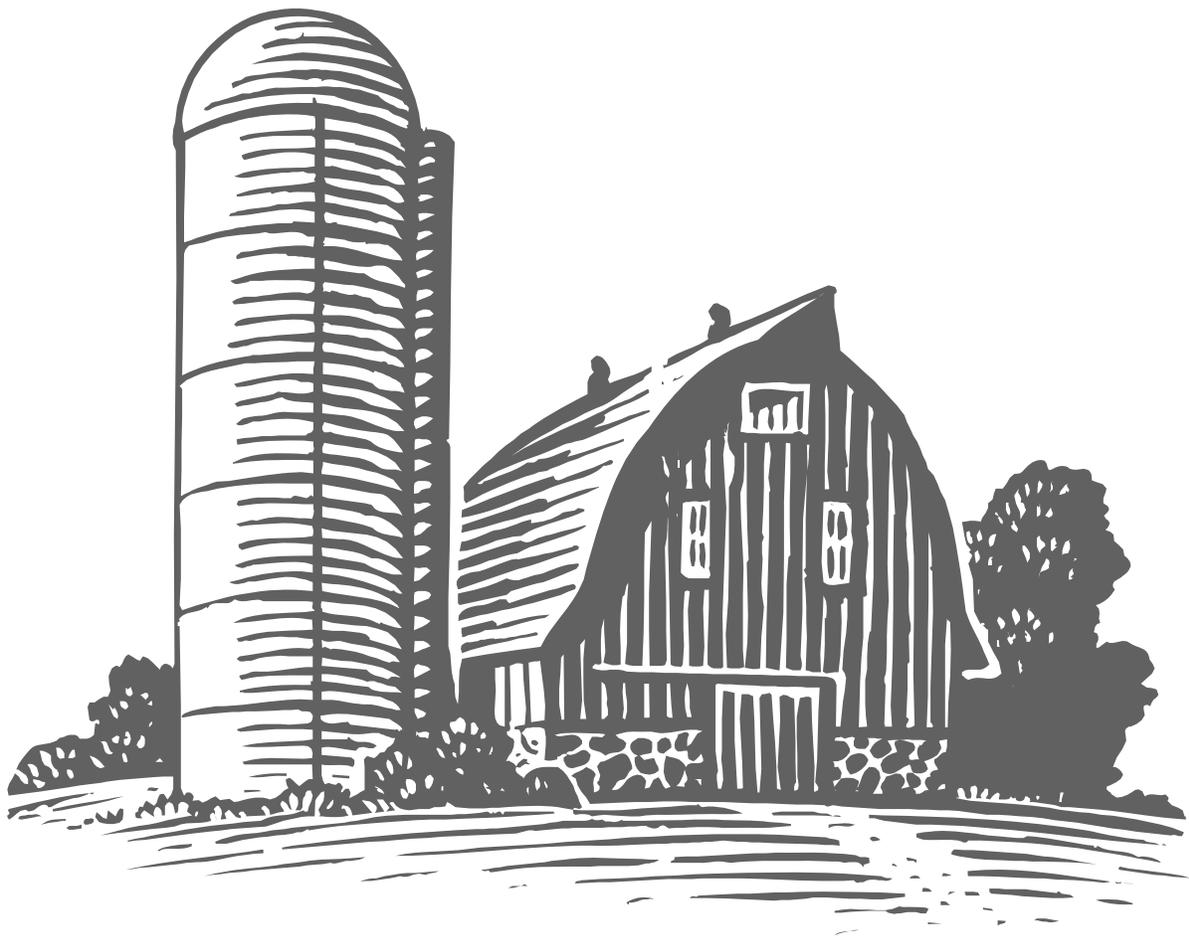


# Guidance in Vocational Rehabilitation Services to Oklahoma Farmers and Ranchers



RECOMMENDATIONS BY OKLAHOMA AGRABILITY & DRS AGRABILITY TEAM

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# INTRODUCTION TO OKLAHOMA FARM INDUSTRY

## A SNAPSHOT OF FARMING IN OKLAHOMA

Oklahoma *agriculture* remains an important economic force, representing \$4.5 billion dollars worth of raw products grown each year. This breaks down to an average contribution in sales per *farm* of \$53,498.

Our state ranks seventh in the United States in total number of *farms* (83,300) and about 75% of our land is in agricultural production.

Most Oklahoma *farms* are considered small *farms*, with an average size of 406 acres. The majority of these *farm* businesses are family *farms*, passed down from generation to generation.

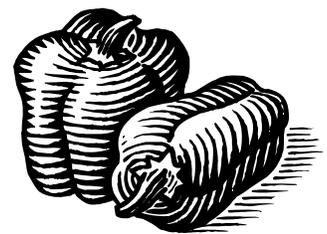
In Oklahoma, it is not unusual to see family members working together to provide labor, share costs, and reach consensus on decisions, but most *farms* continue to have one *primary operator*. Because of the division of labor and responsibilities on *farms*, each *farm* operator is essential to the success and survival of the *farm*.

However, other types of *farm* business structures can be found in Oklahoma, like *corporate farms* and *vertically integrated farms*, as well as *value-added farm* production, *subscription farms*, and *market gardens*.

Despite differences in farming, one fact remains

constant: farming is a hazardous occupation (2nd highest fatality rate) and over 200,000 *farm* workers in the U.S. sustain lost-work time injuries of which many result in serious, life altering disablement. Many others become disabled because of chronic illness or off-the-*farm* accidents and injuries.

The Oklahoma Department of Rehabilitation Services has a vital role in assisting individuals with disabilities enter or retain employment in *agriculture*.



Oklahoma *agriculture* is diverse

## MYTH ONE: FARMING IS AN EASY WAY OF LIFE



Farming is hard work

### AGRARIAN REALITY:

As city and suburban motorists pass through the countryside in the comfort of automobiles, the *farm* looks like a peaceful idyllic place. Looks can be deceiving.

In fact, *farms* and *ranches* require a significant investment of physical labor, time, money, and acceptance of risk. Seasonal demands find the *farm* operator putting in hour upon hour of fatiguing

labor to prepare fields for *planting* or *harvesting grain crops*, tending *livestock*, and maintaining the *farm* infrastructure and machinery.

Farming often entails multiple roles and expectations. Up to 50% of *farm* operators must also work off-the-*farm* jobs to sustain themselves and their families and to obtain health benefits. The *farm* work gets done before and after off-

the-*farm* jobs, on weekends and after church.

*Farm* women often work three “shifts”. The first shift is off-the-*farm* employment. The second shift entails completing household responsibilities and child-care. The third shift is completing *farm* tasks to help pick up the slack and get work accomplished. If the farmer or spouse has a disability, their partner must also fulfill the role of caregiver.

## MYTH TWO: CAN'T MAKE A LIVING FROM FARMING

### AGRARIAN REALITY:

Obviously 83,300 Oklahoma farmers are making a living in *agriculture*. Granted, farming is not an easy way of making a living, and others may not understand or value why anyone would work so hard for the amount of income produced. However, farming is a valid occupational choice.

Farming and ranching also

represents a way of life, which may significantly outweigh the hardships and lower income for those who are embedded in farming culture and perceive themselves as having good quality of life.

Some things have to be measured beyond just income and *farm* and *ranch* businesses are a good example. Most Oklahoma

agricultural producers employ workers from the community. *Farms* create the need for purchases of goods, services, tools, machinery, seed and feed, and chemicals from other rural businesses. Agricultural businesses pay taxes. And lastly, *farms* and *ranches* contribute to creating natural wildlife habitat and stewardship of precious iron mental resources.

## MYTH THREE: FAMILY FARMING IS INEFFICIENT

### AGRARIAN REALITY:

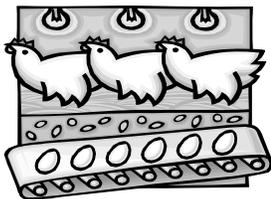
Opinions about what is “efficient” are largely shaped by a market economy which favors economies of scale. From this perspective, larger corporate *agri-businesses* are more cost-efficient. Unanswered questions remain about the environmental impact of *farm* operations like *concentrated animal-feeding operations* and the social effects

of such economic systems.

A small number of producers are moving toward forms of *agriculture* which many people find more in line with their social and environmental values. These *farm* producers are decreasing dependence on growing *commodity crops* and are creating profitable niche businesses in fresh *direct marketing* of *farm* products

like fresh vegetable and meats, *agro tourism*, and *organics*. Some growers may join cooperatives in producing *bio-fuels* or other energy crops.

Ultimately, all these forms of *agriculture* find their spot in marketplaces driven by alternate concepts of efficiency.



## MYTH FOUR: ALL FARMING IS THE SAME

### AGRARIAN REALITY:

Oklahoma *farms* and *ranches* are diverse in the type of *grain crops* grown, animals raised, business structure, and kinds of equipment and machinery needed to produce *feed crops* and *livestock*.

For example, one agricultural producer may work calves by moving them through a handling system where a squeeze chute or tilt table is used to safely confine the animal. Another producer

may still use ranching skills of roping off horses and work the calves on the ground where it is held by two flankers.

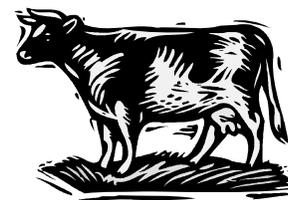
Although most *farms* need *tractors* to perform work, the size and configuration of *tractors* greatly varies.

Different *tractors* are made for utility work, orchardry, row crop production, and large-scale field preparation.

Also, a *farm* in southwest Oklahoma may require

specialized equipment like cotton harvesters or peanut harvesters. Meanwhile a *farm* in eastern Oklahoma may need equipment for shaking trees and picking up pecans.

Service providers, especially those unfamiliar with *agriculture*, will typically find the *farm* producer more than willing to explain how their particular *farm* operates, how tasks are typically performed, and kinds of equipment located on the *farm*.



## FARM CULTURE AND IDENTITY

For some, a job is simply a way to financially support a family, pay the mortgage, and acquire goods and services they feel contribute to quality of life. The jobs performed may have little or nothing to do with how they identify “who they are” as a person. Other roles may be more important, like being a dad, or being a photographer. Jobs are a means to reach other more important ends.

Farmers are more likely to identify themselves through the work they perform and the lifestyle that accompanies the work. A farmer IS a farmer.

For many, the *farm* has been sustained by multiple generations of family members, and the values, routines, and rhythms of *farm* life are found desirable to pass on to future generations.

The *farm* becomes a place of deep personal and spiritual meaning. In fact, on some *farms*, multiple generations of men, women, and children may be found working in various roles and activities upon the *farm*.

The *farm* life offers seasonal routines for daily labor in *planting* and *harvesting*, *husbandry*, maintaining the farmstead and machinery. The hours are long, and often farmers are working alone to achieve results. It is no wonder farmers have been characterized as independent, stoic, proud, thrifty, responsible, and “can do”.

According to a report by the W.K. Kellogg Foundation, farmers value family, hard work, commitment to community, spiritual faith, and self-sufficiency.

Still, *farm* families have the same problems as anyone, including family differences, marital discord, disability, or substance abuse. However, the services needed to assist *farm* family members must be culturally competent.

And simply defined, to a farmer, being able to *farm* is equated with being healthy. The research of Deborah Reed, a nursing professor at the University of Kentucky confirms the notion of health and farming. She interviewed over 200 farmers about their opinions regarding being healthy, and almost all of them reported being healthy meant being able to go out and work on the *farm*.

When what “you do for a living” is your “way of life” and “who you are”, it is easy to see why farmers are motivated to work.

“OCCUPATIONS  
ARE KEY TO  
BEING A  
PARTICULAR  
PERSON, AND  
CREATING AND  
MAINTAINING AN  
IDENTITY”

CHARLES CHRISTIANSEN  
PHD, OTR



*Farm* culture is closely related to care of land and animals

## FARM ROUTINES



Routines of farm life revolve around taking care of the farm

*Farm* routines vary depending on the weather, seasons, and time of year. For instance, in June, most Oklahoma farmers will be busy *harvesting* wheat fields and baling the straw. Summer is also the time for mowing, raking, baling, curing, and stacking hay.

Late summer will find farmers operating *tractors* and preparing fields for next years *planting* by turning over *fallow* fields with plows and conditioning the soil surface with *chisels* or other *harrowing* implements.

During fall months, many farmers and ranchers who raise cattle will be concerned with gathering the weaned calves and shipping them to *livestock* sales. However, the cows and

bulls that will be kept over the winter will continue to be fed and watered. The farmer and rancher will have made decisions about how much hay and supplemental feed will be needed to sustain the herd and where the feed and hay will be stored for access. Some farmers and ranchers will graze cattle on winter wheat as well.

Winter is also a time for repairing and maintaining machinery, however, access to hay, feed, and water is a daily routine for *farm* animals wintering over. Winter is also the time for taxes, preparing financial documents, and getting the books up to date.

Spring renews the *farm* routine cycle when planted

fields of wheat begin to grow taller and beard. Cows begin to bear their calves and need tending by the farmer or rancher.

Vocational rehabilitation counselors working with farmers and ranchers must give consideration to the entire work year to gain an accurate picture of the major work duties of the farmers or rancher client. Often the priority for the farmer is whatever *farm* routines and demands are currently in season, so it is important to obtain the large picture first, and prioritize needs according to the overall *farm* operation.

## WORK ENVIRONMENTS

“MANY TIMES MODIFICATIONS TO ENVIRONMENTAL CONDITIONS CAN BE MADE TO IMPROVE HEALTH, SAFETY, AND TASK PERFORMANCE.”

Farm and *ranch* work take place in a variety of physical work environments. The lighting conditions, temperature, work surfaces, footing, and air quality are important features to note in the agricultural work setting.

For instance, dairy farmers spend a great deal of time working indoors while milking cows. The dairy *parlor* floor will be concrete and most likely will be wet, creating an environment conducive to slipping and falling. The dairy farmer must

also have physical contact with large heavy dairy cows and may be kicked, stepped on, or pushed against by the animal. The dairy farmer must lift and carry *milking units*, depending on the setup of the *parlor*, as well as thoroughly clean everything after milking.

Meanwhile, a wheat farmer on a harvest *combine* must deal with sun exposure, extreme heat, dust, and long hours in the operators seat of the *combine* repetitively operating numerous hand and foot controls to successfully cut the field and

transfer the wheat to grain trucks that will take the wheat to the *granary*.

Vocational rehabilitation counselors should optimally visit the farm to look at the work environment of the farm client, and/or ask probing questions about the types of environments the farmer or rancher is working in through the year. Many times modifications to environmental conditions can be made to improve health, safety, and task performance.

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## FARM STRESS

Most *farms* and *ranches* appear tranquil and pastoral when viewed by travelers swiftly passing by on nearby highways. In fact, nothing could be farther from the truth. Farming and ranching families endure stresses over which they have little or no control.

For example, the farmer or rancher pays the same high cost of fuel as anybody and depends on petroleum based chemicals for fertilizing, pest, and weed control. Yet, depending on global markets they may see little profit by the time the crop is out of the ground.

Farmers also have no control over the vagaries of Oklahoma weather. Severe winter ice, spring and summer hail storms, flood, and tornadoes can all damage crops. Drought or extended periods of dry weather can have devastating consequences when plants and animals cannot get enough water to survive.

Fortunately many farmers purchase *crop insurance* to hedge against weather related damage, but many cannot afford to purchase insurance and suffer the consequences.

Working with family members can also be a source of stress and frustration as different generations on the farm may have different viewpoints on dividing labor, methods of production, and sharing financial risks and rewards.

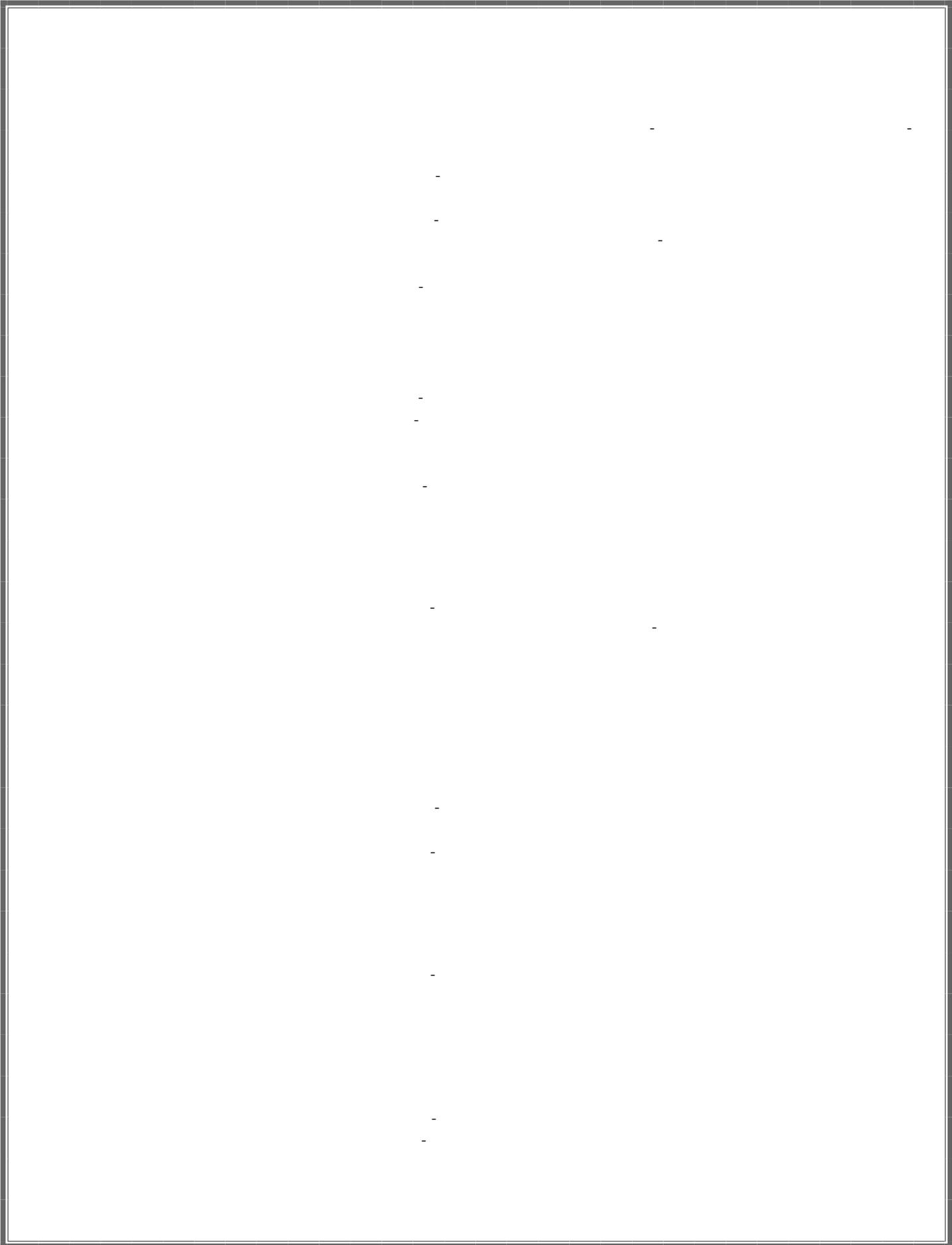
Most people can leave work at the end of the day and find stress relief at home, through exercise or leisure. For farming families the workplace and home are the same. In addition, medical bills related to chronic health conditions and disability compounds existing stress.

Many VR/VS clients working in *agriculture* may want to benefit from services that can teach them strategies for coping with on-the-

farm stress and familial relationships, as well as receive referrals and advocacy to deal with medical debt.



Farm stress comes from weather, finances, and family



## RURAL HEALTH ISSUES

“MOST FARM AND RANCH VOCATIONAL REHABILITATION CASES WILL RESULT IN A SUCCESSFUL EMPLOYMENT OUTCOME”.

Communities in rural Oklahoma are not even close to having the same depth and breadth of services as metropolitan and suburban areas.

The infrastructure of transportation, health facilities, and emergency medicine are not readily available. The availability of mental health services, home health, caregiving, in-home physical rehabilitation, and other local services are non-existent in many places.

Many rural communities are geographically isolated as well.

In order to receive services, most rural dwellers must drive long distances to more metropolitan areas. Families may be hours away from family members who are hospitalized or in long-term care and need comfort and support of familial relations.

Emergency medical and fire services are often provided by volunteers who may not have access to the same equipment and level of training as city peers.

Data has consistently shown that rural dwellers lag behind in health services, and consequently in health outcomes. In addition, they are more likely to be *uninsured* or *under-insured* compared to other Oklahomans.

Many chronically ill or disabled rural dwellers are given well-meaning advice to “move to town” for services, without considering whether this is financially feasible or personally desirable.

Thankfully, advances are being made in providing *tele-health* and *tele-rehabilitation* technologies to rural residents through the University of Oklahoma-Health Sciences, and more rural primary care providers have been recruited into rural communities by Oklahoma State University Health Sciences.

However, vocational rehabilitation counselors should not assume that comparable services will be available in most rural areas. The majority of services will be informally provided by family members, church, or neighbors. The lack of adequate rural health services creates stress for all rural community members.

Whenever feasible, the vocational rehabilitation counselor may wish to visit the farm and ranch where a potential client lives. This will provide the counselor with the opportunity to assist the client in filling out an application for service, gaining first hand knowledge about the farm business situation, and determining eligibility as quickly as possible.

Expediting referrals for other human services needed by the farm family can be provided at this time. Strategies and recommendations for strengthening and expanding current support systems can also be determined from the on-site visit.

For instance, the caregiver of a farmer with a disability may need *respite care* in order to go to the doctor for his/her own health care needs. Many of these needs might not be obvious during an office intake. Yet, these services are important in maintaining the health and vocational participation of the farmer with a disability.

In summary, farmers and ranchers with disabilities in Oklahoma are working, operating businesses, contributing to economic vitality, and making a living from farming thanks to the efforts of vocational rehabilitation counselors. More success is possible!

## CASE MANAGEMENT NEEDS OF FARM/RANCH

### ROLE OF VOCATIONAL REHABILITATION

The Rehabilitation Services Administration and Oklahoma Department of Rehabilitation Services support the choice of clients in obtaining desired employment. This includes the option of clients who wish to be retained in a current occupation but who need vocational rehabilitation services in order to do so successfully. Most farmers will fit into the category of being retained in a current occupation. This makes sense for many reasons:

First, farmers and ranchers generally already possess the land, animals, farm financing, machinery, equipment,

and tools to work in *agriculture*. Second, they have highly specialized knowledge about the use of land, water, and resources used for agricultural production. Thirdly, the prospect of successfully re-tooling the farmer for other available vocations in the community is marginal in most rural locations. Fourth, most farmers will choose to remain employed in *agriculture* when given the opportunity to do so.

The role of the vocational rehabilitation counselor will be to work with the farmer in determining what vital services, assistive technologies, home or work modifications

will be needed to return to work, as well as identifying other financial resources, efficient use of any cost-share, and learning about programs available to assist with achieving success.

Although vocational rehabilitation is acknowledged to be the payer of last resort, in reality, Oklahoma has few other agency or organizational resources to fund the services and equipment needed for vocational success. However, a few available resources will be identified in Chapter Five.



Vocational Rehabilitation can retain people with disabilities in the workforce

### ELIGIBILITY

Effective service includes gathering information for determining eligibility as soon as possible. The longer a self-supporting business owner like a farmer or rancher must wait for services, the more the viability of the business is jeopardized. Why? Because self-supporting farm operators depend upon their own participation in the daily labor and work tasks in order to keep the business going. It is not likely a full-time farmer is on workman's compensation or receiving disability income while awaiting vocational rehabilitation services. Thus, unnecessary delays or lapses of service should be avoided to every extent possible.

Also, it is important to remember the severity of the disability is exacerbated and heightened by the complex environments in which agricultural work is performed. For example, an office worker who sustains a lower extremity

leg amputation will have fewer disadvantages in returning to work in an office environment than a worker or farmer who must be able to climb up heights, kneel, lift and carry, and walk on uneven terrain or slopes in the field and in adverse weather conditions.

For many reasons, including age, condition of disability, rural location, and number of work environments, and most farmers will also need multiple services over an extended period of time.

For example, G.M. was a 67 year old farmer in southwestern Oklahoma who had a stroke paralyzing his left side. G.M. also had diabetes, high blood pressure, and high cholesterol. G.M. was the *primary operator* of large cash commodity farm and cattle operation. Upon becoming eligible to receive vocational rehabilitation services, it was determined he would be able to return to work as a farmer if he was provided with

the necessary services. A comprehensive plan of employment was created to ensure success. G.M. received additional physical rehabilitation to increase his endurance for working and strengthening his hemiplegic side. He received orthotic services to improve his ambulation and diabetic shoes to reduce the risk of ulcers when walking and operating machinery. His vision was screened to pro-actively treat any diabetes related retinopathy. G.M. was also unable to climb up on his *tractor*, and a platform lift was installed.

Further, G.M. was able to financially participate in his plan and purchased a farm mobility device called a John Deere Gator. These services were all provided within six months of his intake, and resulting in a successful case closure.



## DETERMINING COST SHARE

Vocational rehabilitation counselors have an obligation to determine whether a client can afford to participate in sharing the costs of certain vocational rehabilitation expenses. Also, many times the counselor's supervisor will want to know if the *farm* business is viable. However, several common sense points bear keeping in mind:

- The business assets of the *farm* (land, machinery, buildings, animals, vehicles, tools, operations money) belong to the business and should not be included in determining income for cost-share.
- The business assets of the *farm* are almost always needed to sustain the *farm* business and should not be liquidated in order to pay for rehabilitation expenses.
- Check the *schedule F*, line 36 from the last tax year to figure annual income. The *schedule F* also provides a debt/expense ratio to determine if the *farm* is "upside down" (i.e. more debt than assets).
- Just because the latest *farm* financial statements show a loss does not necessarily mean the *farm* is out of business or at risk. *Farms* have good years and bad years.
- Viability of the *farm* business can be demonstrated by whether *farm* credit is being extended to the *farm*. Credit institutions are not going to loan money to *farms* that are going under!
- Ask about whether *farm* repayment is being made on time, since payment patterns can also demonstrate viability.
- Consider the number of years the *farm* has been in business under the primary *farm* operator as evidence of viability. A *farmer* who has survived over a decade or more is probably a successful operator.
- A red flag could be a *farmer* asking the VR/VS counselor to purchase seed because the bank will not do so.
- IFMAPS at OSU can assist in stating a *farms* financial position.

"SOMETIMES A FARMER WITH A DISABILITY WILL DECIDE TO SHIFT THE FARMING OPERATION INTO A MORE MANAGEABLE ENTERPRISE."

## SELF-EMPLOYMENT OR RETENTION?

It is important to determine whether a farmer should be served under self-employment rules or as retention in employment case.

Most of the time the farmer has already been operating a farm for a considerable amount of time. It does not make sense to work the farmer's case under self-employment rules and policy. It makes more sense to provide services that retain the farmer in his current employment situation. The farmer will not need assistance from vocational rehabilitation for paying business-related

start-up costs, so a *business plan* is not really necessary to provide services. In other words, the viability of the farm has already been demonstrated.

However, sometimes a farmer with a disability will decide to shift the farming operation into a more manageable *enterprise*. For example, one traditional Oklahoma wheat farmer and cattle stocker decided to move into a *non-hormone treated cattle* home-based business marketing the processed beef right from the

farm. In this instance, it made sense to work the case under self-employment policy, since this constituted a new and vastly different farm operation.

At times people with disabilities will choose to enter agricultural related *enterprises* or start an agricultural or horticultural related business. In recent years, small acreage growers have proven very successful in deriving income from farmer's market production. A person with a disability who is entering (cont pg 12)

## CHAPTER TWO: CASE MANAGEMENT NEEDS

Using the right measuring tool is important to show outcomes.

## CHAPTER TWO: CASE MANAGEMENT NEEDS

## POTENTIAL NEEDS OF AGRICULTURAL CLIENTS

### ASSESSMENT

VR/VS counselors typically use appropriate existing information to ascertain diagnosis and the medical functional impact of disability. However, assessment to determine eligibility can be greatly enhanced through using the established expertise of the Oklahoma AgrAbility Project to evaluate the effect of a farmer or rancher's disability upon task performance and participation in work. The AgrAbility Assessment is a comprehensive written evaluation of the agricultural client's past and current participation in work, quality of current performance, and identification of environmental or other barriers to working. The assessment may also be useful in determining the appropriate priority service category. For instance, since agricultural workplaces are dangerous, dynamic, and complex, a given condition of disability may actually be more severe in this context, than say, in an office environment.

The AgrAbility Assessment can also be useful for writing goals for the IPE and projecting the goods and services necessary for successful rehabilitation. In most cases that have an AgrAbility Assessment, eligibility can be determined in considerably less than 60 days, and allow the counselor to act effectively and efficiently toward closure. Referrals for AgrAbility Assessment services can be made through ABLÉ Tech at: 1-888-885-5588 (toll-free).

VR/VS may also have staff who are *assistive technology* or sensory aid specialists who can contribute information on part or all of the assessment for eligibility and identification of goods and services, depending on the individual's established expertise. Expertise and competence can be determined by the amount of training the individual has in the area of agricultural health and safety, AgrAbility *assistive technology* workshop training, and the amount and time of practice experience with agricultural

clients in the past. Coming from an agricultural background is also a plus, but does not substitute for practice *competency*: the specific skills, knowledge, and attitudes required for working with agricultural clients with disabilities.



Some agricultural accidents may be minor, but they can still prevent farmers and ranchers from completing their work.

## COUNSELING AND GUIDANCE

Counseling and guidance is a primary tool in vocational rehabilitation. It allows the VR/VS counselor the opportunity to develop rapport and common ground with the farmer and rancher, as well as assist the agricultural client in adjusting and adapting to having a disability. Often a farmer or rancher with a new disability will have been discouraged by well-meaning health practitioners from returning to working in *agriculture*, when actually most of them can continue participation in farming or ranching work. The counselor can often assist in correcting these misperceptions by explaining how the agricultural client can maximize satisfaction in farm work participation through the use of VR/VS services that identify suitable and realistic farm work goals.

All agricultural clients will need some form of counseling and guidance from the VR/VS counselor, especially counseling and guidance that enable *informed choice*. An example would be a farmer or rancher who decides to significantly change the farm or ranch operation into a more physically manageable alternative *enterprise*. Since the change from a traditional commodities or *livestock* farm or ranch is significant, other information and support services will likely be necessary to reach a success-

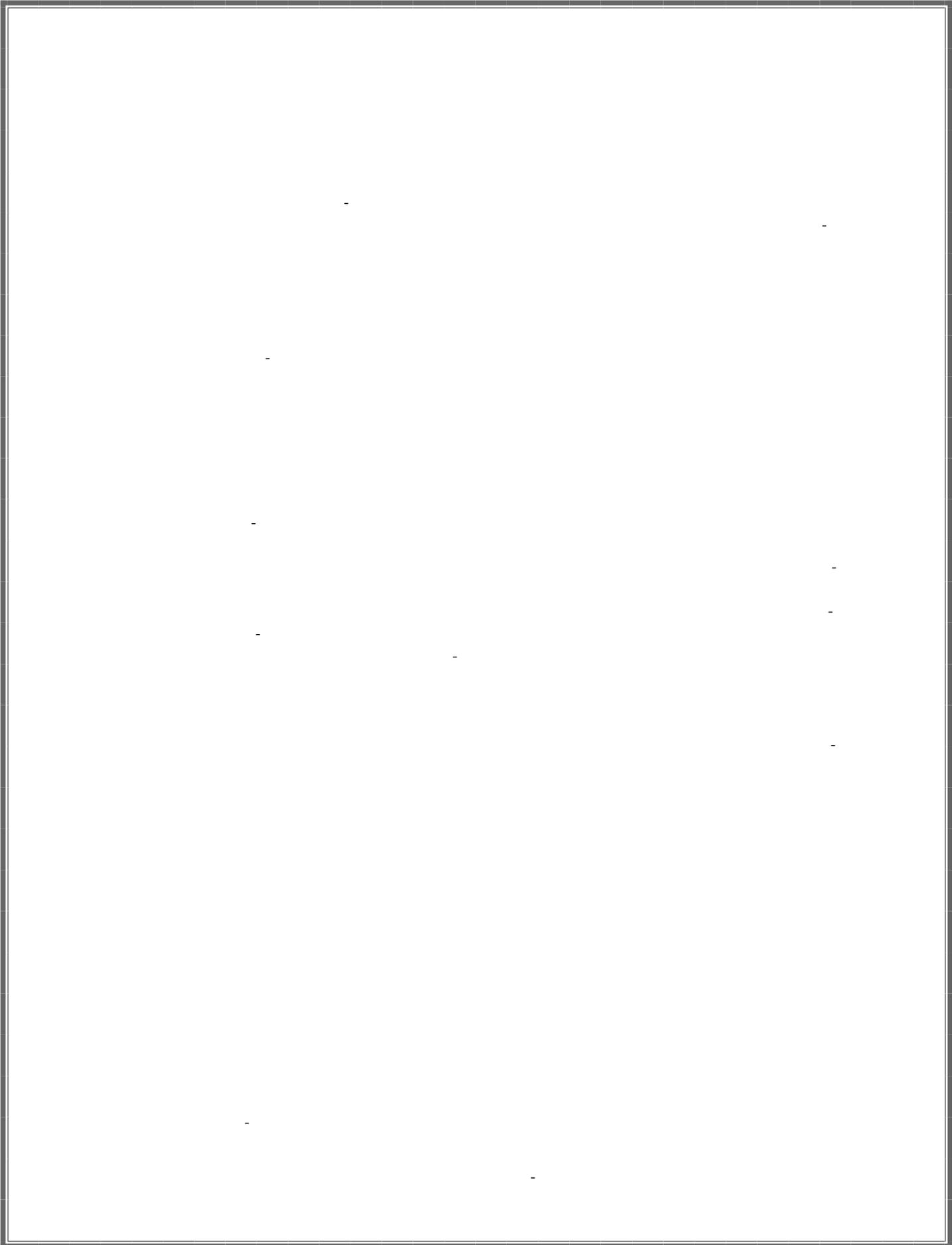
ful rehabilitation closure. The counselor and the client may need more information about alternative farm *enterprises*, as well as the capacities needed to operate the new *enterprise*. For example, a VR counselor working with a farmer in southwestern Oklahoma, who had experienced numerous traumatic hand injuries, discovered the farmer wanted to use his farm to raise USDA *source verified non-hormone treated cattle* and then directly market the product. These needs required the farmer to obtain new skills in *business planning*, developing a USDA approved management plan, and implementing strategies to build additional *capital* for startup and new equipment. So that the client could exercise a more *informed choice*, the counselor and AgrAbility were able to refer the farmer to specialized information and support services that could assist him in developing skills and extra financial resources as well as test the feasibility of his new enterprising idea.

A few agricultural clients may want to leave farming and ranching entirely and move into traditional in-town employment situations, though this is extremely rare. In these instances, the VR/VS counselor can make use of traditional contacts and supports they have already established to ensure clients reach success-

ful closure. These might include obtaining services through other entities and organizations, paying for job-related services, such as: job search and placement, job retention, ongoing services, and extended services. Clients may also need vocational and other training services. In addition, since many farmers are *under-insured* or *uninsured*, they may need diagnosis and treatment of existing physical and mental impairments that are affecting the ability to enter new employment or maintain their current employment.

*A working cowboy and ranch manager* without health insurance had significant deterioration in both hips from a lifetime of working from horseback. He was limited to using a wheelchair and unable to work. Vocational rehabilitation was able to purchase medical services to replace both hips over a period of months for treatment, rehabilitation, and recovery. The case was successfully closed by placing him into a new occupation as a *livestock contract buyer*.

COUNSELING  
CAN ASSIST THE  
FARMER OR  
RANCHER IN  
ADJUSTING AND  
ADAPTING TO  
HAVING A  
DISABILITY.



## FARM ACCESS ISSUES AND TYPICAL SOLUTIONS (CONT.)



exist which can enhance access and reduce barriers to work participation that relate to gate closures, barn doors, and latches. A vocational rehabilitation counselor in northeastern Oklahoma was able to purchase a powered gate opener for a farmer with a severe and degenerative back impairment. This enabled the farmer to open a main gate with a remote control; thus, he did not have to get in and out of his truck or have to lift or drag the gate to open it. Other devices, like one-handed gate latches or easy turning handles are available for clients with arm or hand limitations. Also, many different solutions exist for removing barriers at doors and entry points to barns, shops, and outbuildings. Farmers with visual impairments may benefit from solutions that decrease sources of glare, increase general lighting and task lighting, provide optimal organization of tools and workspace, and high



The risk of injury increases with fatigue

visibility marking on key objects for improving their contrast with the task environment.

Finally, an incredible revolution in *ergonomic tool* design has optimized the safety and prevention of musculoskeletal disorders in the workforce. These same tools can be utilized appropriately for many agricultural clients who have difficulty manipulating regular tools or who need assistance in stabilizing materials through the use of one-handed clamping devices. Many of these devices are found off-the-shelf in home improvement stores, construction supply businesses, or hardware and tool stores. Frequently minor modifications can be made to existing tools to increase their usability. Anti-vibration tape or non-slip gripping can be applied to a tool handle, or the tool can be modified for a specific need. For example, a set of hay hooks were modified using a model-

ing plastic to create a more comfortable custom grip for a farmer with severe arthritis in her hands. Another farmer with a total shoulder arm amputation benefitted from extending the length of a set of open end wrenches to give him more leverage. Yet another farmer with bilateral arm amputations was able to use a cordless drill by adding steel eyelet hooks through which he could hold the drill and operate the trigger.

## FUNDING

In general, VR/VS are frequently the only source of funding for purchasing the services and goods needed to reach a successful closure. However, funding is not an inexhaustible resource of the Department. Whenever possible, VR/VS counselors will augment the funding resources available to clients through various means. Some farmers or

ranchers may have a particularly good year in farming and make a profit from the farm. In this instance, the farmer or rancher could be expected to financially contribute to their plan. In many years the farmer may have to reinvest all cash back into the farm business without any profit taking.

Other resources are worth mentioning in regard to

funding opportunities for assistive technologies, services, or goods needed to vocationally rehabilitate the agricultural client.

(Resources are detailed in the remainder of Chapter three).

## ALTERNATIVE FINANCING PROGRAM & ACCESS TO TELEWORK FUND

Oklahoma ABLE Tech, in partnership with the Oklahoma *Assistive Technology* Foundation (OkAT), contracts with BancFirst, to offer a statewide Alternative Financing Program (AFP) and an Access to Telework Fund Program (ATF) to Oklahomans with disabilities.

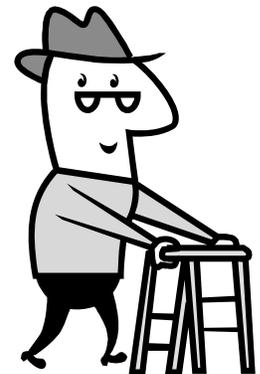
Oklahoma ABLE Tech is one of 26 states to receive funding from the US Department of Education, National Institute on Disability and Rehabilitation Research (NIDRR) to operate a low interest loan program called the Alternative Financing Program or AFP. In addition, ABLE Tech is one of 20 states to receive funding from the US Department of Education, Rehabilitation

Services Agency (RSA) to operate an Access to Telework Program or ATF.

The programs offer a low interest and/or low interest guaranty bank loan that provides Oklahomans with disabilities the opportunity to borrow money for the purchase of needed *assistive technology* (AFP), computers and other adaptive equipment (ATF). Both loan programs are administered through a partnership with ABLE Tech, BancFirst of Stillwater and OkAT. Both the AFP and ATF loan programs provide a mechanism for persons who do not qualify for a low interest loan through BancFirst, to request a financial review by OkAT to co-sign or guarantee a loan. Under its own established loan criteria, OkAT

determines the loan applicant's ability to make the monthly payments. The interest rate charged to the borrower on the low interest loan is 2% above the Wall Street Journal Daily Prime Interest Rate for an extended term up to 5 years. ABLE Tech has managed a very successful AFP program since the fall of 2001.

Oklahoma ABLE Tech can be reached toll free at 1-888-885-5588.



## SOCIAL SECURITY WORK INCENTIVES

Social Security has an umbrella of special rules that make it possible for persons with disabilities receiving *Social Security Disability Insurance (SSDI)* or *Supplemental Security Income (SSI)* to work and still receive monthly payments and Medicare or Medicaid. Social Security calls these rules "*work incentives*". Some farmers and ranchers who have become disabled may receive **SSDI or SSI** and would potentially be eligible to benefit from these incentives.

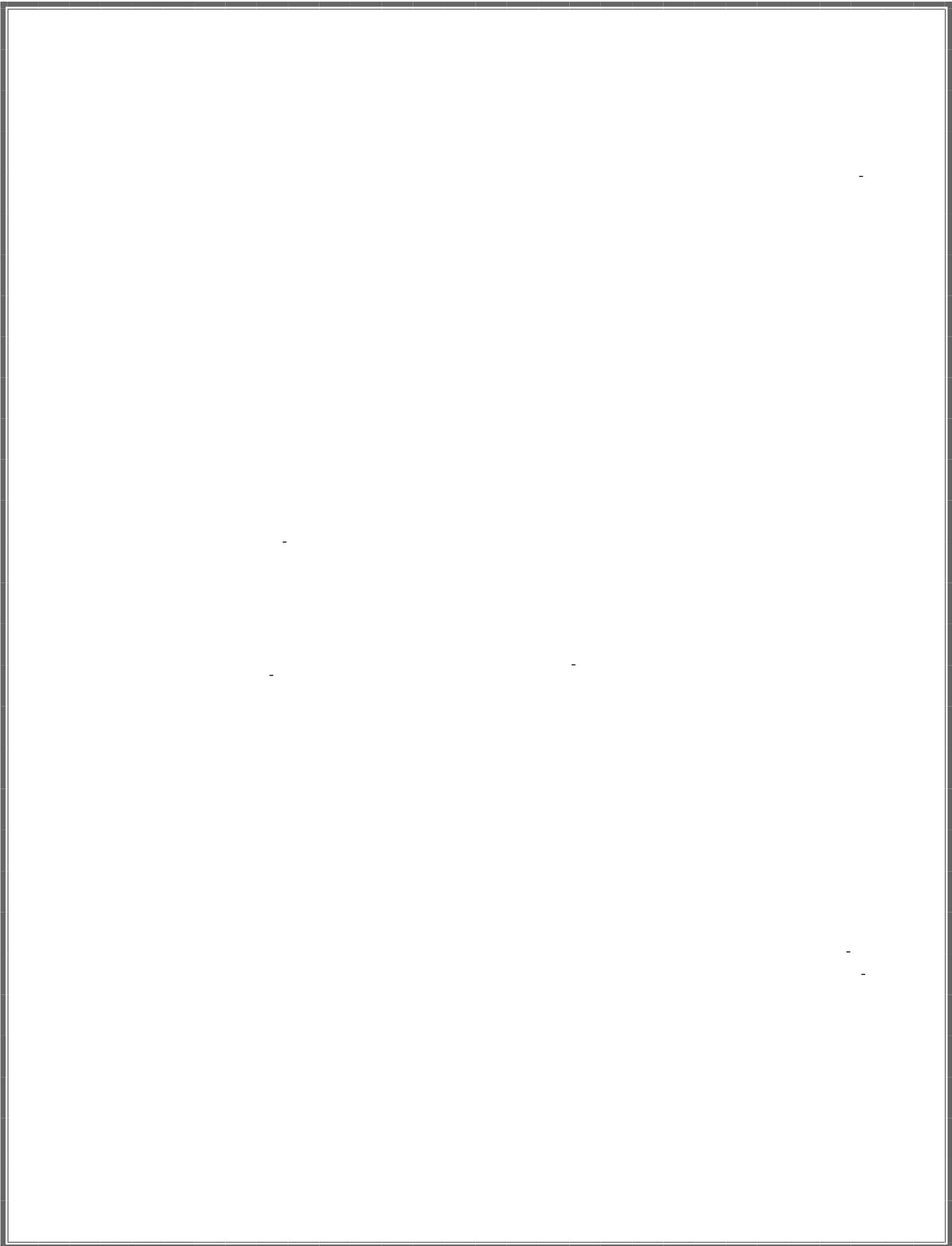
The Social Security *work incentives* are like an umbrella to help farmers and other persons with disabilities weather the rehabilitative process of going back to work. On one

side of the umbrella is Social Security Disability Insurance, or **SSDI**. A person with a disability receives **SSDI** because they have paid FICA taxes for a specified period of time, like an insurance policy, and have become disabled and are eligible to receive benefits in the form of monthly payments and Medicare health care coverage.

On the other side of the Social Security umbrella is Supplemental Security Income, or **SSI**. A person receives this type of payment due to limited income and resources. Usually a person receives **SSI** when there has not been enough paid into FICA taxes over the years to become an "insured" worker, or the amount

of **SSDI** the person would receive is below the *Federal Benefit Rate (FBR)*.

The **FBR** changes every year. In 2009, the FBR is \$674 per month for a single person. To be eligible for **SSI** a single person must have \$2,000 or less in countable resources. They would also be categorically eligible for Medicaid. There are certain *work incentives* that are associated with **SSDI** and **SSI** separately and *work incentives* that apply to both the **SSDI** and **SSI** programs.





## SSI WORK INCENTIVES (CONT.)

the farmer would receive an **SSI** payment of \$174, in addition to the \$1,085 in **NESE** that he originally earned.

**Student Earned Income Exclusion (SEIE)** is a **SSI** income exclusion that allows individuals under age 22 who regularly attend school to exclude from earnings up to \$1,640 (in 2009) of earned income per month (up to a maximum of \$6,600 per year, in 2009). The **SEIE** applies to earnings deemed from an ineligible spouse or parent(s) and to the joint earned income of eligible couples when both members are under age 22 AND are working students.

**Blind Work Expense (BWE).** Any **SSI** recipient whose primary diagnosis is blindness, and who receives earned

income, is entitled to exclude from that income any ordinary and necessary expenses attributable to the earning of income. For example payroll taxes, meals consumed while working, transportation costs or guide dog expenses may be excluded when determining **SSI** eligibility and payment amount.

**Plan to Achieve Self Support (PASS)** is a **SSI work incentive** that is also available to **SSDI** beneficiaries. Persons with disabilities are able to set aside income and/or resources to be used to achieve a specific work goal. Interested and eligible beneficiaries would need to complete a SSA-545 application form and submit it to a SSA PASS Cadre Specialist for consideration and approval. The PASS application form SSA-545 is available

online at: [www.socialsecurity.gov/online/ssa-545.html](http://www.socialsecurity.gov/online/ssa-545.html). In the state of Oklahoma, an individual can reach a Dallas Region PASS Specialist (includes Oklahoma) at 866-635-8697 or 405-605-3001, ext. 3002.

EXAMPLE: A farmer could possibly use **PASS** to help finance adaptive equipment that would allow him/her to continue farming at a substantial level. Depending on what benefit the farmer is receiving, the **PASS** can work in several different ways.



## EXAMPLES OF SSI WORK INCENTIVES

1) If a farmer is ineligible for **SSI** due to excessive countable resources, such as a personal savings account, s/he could write a plan to set aside the savings account amount into a **PASS** to help purchase the adaptive technology needed to continue farming. The savings account would no longer put him/her over the resource limit to become **SSI** eligible; so s/he could apply to receive the full **SSI** amount per month. S/he would continue to put a portion of his/her countable earnings in the **PASS** each month until s/he had enough to purchase all the needed adaptive equipment. While the **PASS** is active, s/he would receive a monthly **SSI** payment and would retain a portion of his/her

earnings to live off of each month.

2) If a farmer were receiving **SSDI** only, s/he could choose to write a **PASS** to set aside his/her monthly **SSDI** check (and the countable portion of any earnings) into a **PASS** account to be used to purchase the adaptive equipment needed to continue to farm. By setting aside the unearned income and countable portion of his/her earned income, s/he could then be eligible to apply for and receive the full monthly **SSI** amount to pay for monthly living expenses.

3) If a farmer were receiving both **SSDI** and **SSI** benefits, s/he could set aside the **SSDI** and a portion of his/her countable earnings in a **PASS**

account to be used to finance the needed equipment. The farmer would then become eligible to receive the full **SSI** payment, plus retain the remaining portion of any earnings, to cover monthly living expenses.

In each of these examples the farmer could apply for an ATF or AFP loan and use **PASS** funds to make their monthly payment.

Also, in each of these examples, the farmer would remain resource eligible because the (cont pg 22).



## EXAMPLES OF SSI WORK INCENTIVES (CONT.)

funds in the **PASS** account are not counted as a resource for **SSI** eligibility. S/he would also remain categorically eligible for Medicaid and have future access to continuation of Medicaid through **1619(b)**.

When considering using a **PASS**, remember many farmers are married with a spouse earning off the farm income which might impact **SSI** eligibility. There is also potential that farmers would have outstanding loans that prohibit them from meeting monthly living requirements if they were to pursue use of a **PASS**. When **PASS** is considered, it is important to work closely with the **PASS** Cadre due to the complexities of each individual situation.

**Section 1619(b)** provides for continued Medicaid eligibility for individuals whose *earned* income is too high to qualify for a **SSI** cash payment, but are not high enough to offset the loss of Medicaid or publicly funded attendant care.

**Property Essential to Self Support (PESS)** is an **SSI** provision which allows individuals to exclude certain resources that are essential to their means of self-support when determining their resource eligibility for **SSI**. To be eligible for **SSI** a person must have countable resources below \$2,000 for a single person or below \$3,000 for a couple. Under this provision all of the resources that a farmer would acquire to be used for their

farming business would be excluded when calculating their **SSI** resource eligibility, because the property would be used in the business or essential for self-support.



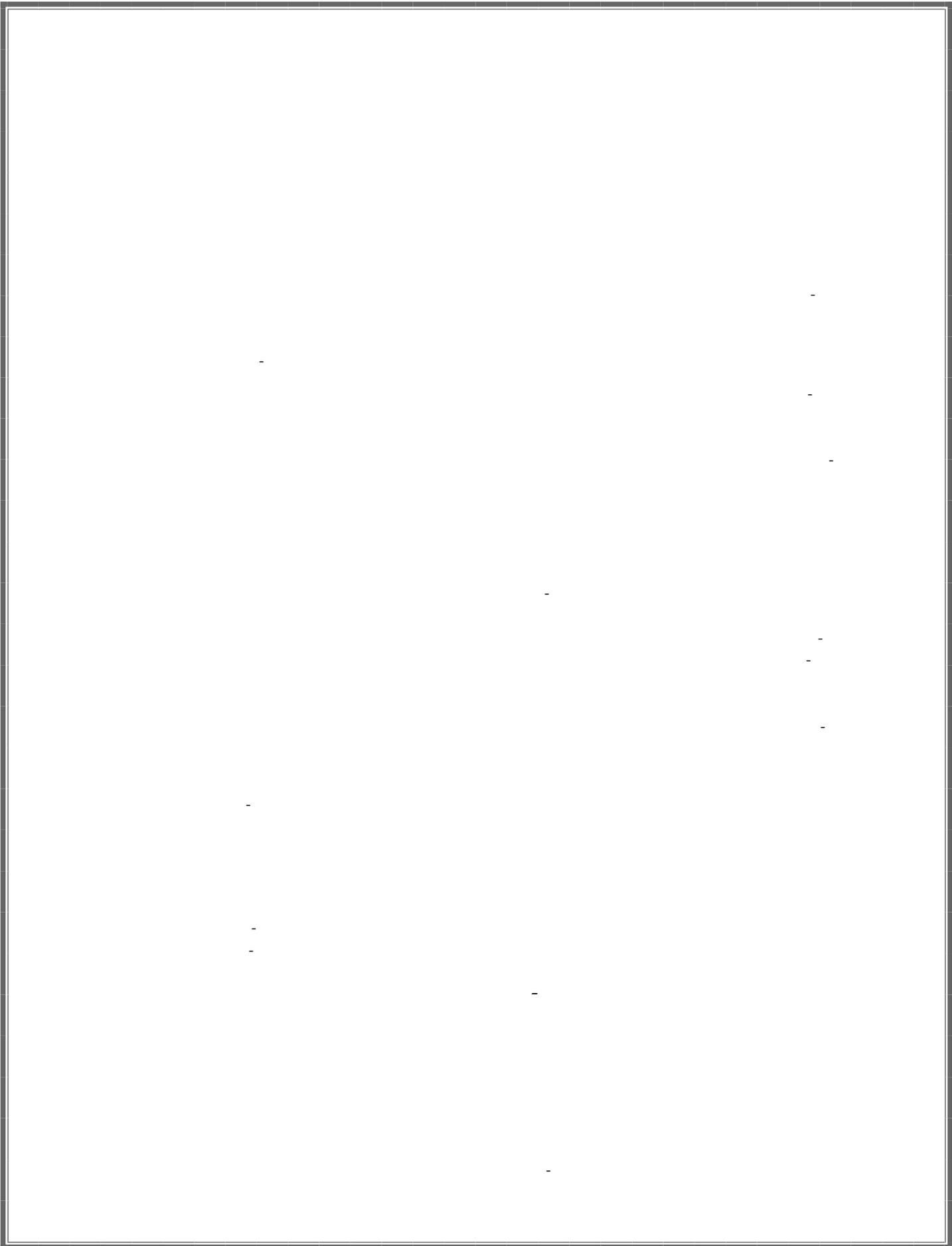
## SSI & SSDI WORK INCENTIVES

**Impairment Related Work Expenses (IRWE)** applies to both **SSI** and **SSDI**. Social Security deducts the cost of certain impairment-related expenses that a person needs in order to work, from their earnings when determining if the person is performing substantial gainful activity or **SGA**. Examples of impairment-related expenses are items such as a wheelchair, certain transportation costs, medication co-pays and specialized work-related equipment. The items/services must be paid for by the indi-

vidual and not reimbursable from other sources. During initial eligibility for both **SSI** and **SSDI**, and on an on-going basis for **SSDI**, the cost of **IRWE** expenses are deducted from gross earnings in calculating **SGA**. For the **SSI** program, the cost of an **IRWE** is subtracted from the person's earnings in calculating their monthly cash benefit.

**Un-incurred Business Expense** refers to a self-employment business support that someone provides to a person at no cost. Social

Security deducts un-incurred business expenses from a person's net earnings from self-employment (NESE). Examples of un-incurred business expenses are (1) a Vocational rehabilitation agency gives a rancher a computer that is used to keep track of his/her financial record keeping; and (2) the friends and neighbors of a disabled farmer volunteer their time to assist the farmer in *harvesting* his/her crops and refuse to be paid for their help. For an item or service to qualify as an un-incurred (cont pg 23).



## SECTION RECAP



Social Security *Work Incentives* have been used successfully with clients receiving VR/VS and Oklahoma AgrAbility Services. In one example, a farmer with a spinal cord

injury was able to continue to have Medicare health insurance and receive his disability income during his vocational rehabilitation program, as well as use the incentives of Property Essential for Self-Support (PESS), Impairment Related Work Expenses (IRWE), Un-incurred Work Expenses, and Trial Work Period (TWP) to successfully return to work as a farmer over an extended period of time.

In another example, a farmer purchased a new work truck with a hydraulic bed in order to add additional equipment like a seated mechanical man lift, powered *cube feeder*, diesel fuel tank, and round *bale carrier* to make it possible to do multiple work tasks from one vehicle. The cost of the truck was deducted from his income earnings for Social Security purposes as PESS. Meanwhile, the added equipment was considered IRWE's since they were needed to participate in work secondary to his disability, and also be deducted from his income earnings for Social Security purposes. Additionally, the services and goods purchased through Vocational Rehabilitation were considered Un-incurred Work Expenses since they were paid for by VR/VS and were necessary to support his working.

Another example of an Un-incurred Work Expense or Unpaid Help might be the volunteer hours of labor provided by neighbors in order to get his wheat harvested until he is able to do so himself. Having Trial Work Period months available also ensures there is time to imple-

ment and use new strategies and assistive technologies that is crucial in determining whether a farmer or rancher will be able to continue operating the farm.

Certainly, without the benefits of *work incentives*, transition back into successful employment and ending dependency on disability income would not be possible for many people. It is vital to assist a client in identifying *work incentives* that will assist in maintaining a source of income while the client is attempting to return to employment and self-supporting income.

Oklahoma AgrAbility can assist with identifying *work incentives* that clients on **SSDI** or **SSI** may be eligible for when returning to farming and ranching, and ultimately enhancing the services vocational rehabilitation is able to provide.

#### OTHER RESOURCES

Additional information on the above *work incentives*, including definitions, manual references and/or individual assistance can be found at:

Social Security Online,  
*Work Incentives* – General Information:  
(<http://www.ssa.gov/disabilityresearch/wi/generalinfo.htm#work>)

Social Security Administration's Program Operations Manual System (POMS) (<https://secure.ssa.gov/apps10/poms.nsf/partlist!OpenView>)

The POMS is a primary source of information used by Social Security employees to process claims for Social Security benefits. The public version of POMS is identical to the version used by Social Security employees except that it does not include internal data entry and sensitive content instructions.

Social Security Handbook, a basic guide to Social Security programs (a plain language format for use by the public): ([http://www.ssa.gov/OP\\_Home/handbook/ssa-hbk.htm](http://www.ssa.gov/OP_Home/handbook/ssa-hbk.htm))

Social Security's Guide to Employment Supports, also known as the *Red Book*, is an SSA publication that provides definitions, explanations, and practical examples of the use of work incentives. The Red Book can be found at (<http://www.ssa.gov/redbook/index.html>)

Oklahoma *Work Incentives* Planning and Assistance (OWIPA) – a SSA funded program that provides *work incentive* and planning services to individuals who receive **SSDI** and/or **SSI** benefits. Contact the National Center for Disability Education and Training, Norman, OK at 405-325-8130 or toll free at 866-608-8873.



## OKLAHOMA RESOURCES FOR AGRI-BUSINESS

Oklahoma has several key *agri-business* resources that may be instrumental in implementing the IPE of a client. These resources range from traditional large commodity *agriculture* to innovative entrepreneurship in niche

*agriculture* like *direct marketing* of farm products, *agritourism*, or industry forecasting. This chapter is not meant to be an exhaustive resource of all available agricultural business resources, but serves as

examples of the types of resources found in Oklahoma.

### CAREER TECH-BUSINESS & INDUSTRY SERVICES (B & I)

Small businesses and entrepreneurs can expand and grow stronger by taking advantage of these services:

Self-Employment Training - offers professional assistance and guidance to persons interested in starting a new business in Oklahoma.

Small Business Management - offers

the business owner a step-by-step program for creating and growing a successful business.

Oklahoma Bid Assistance Network - provides marketing and technical assistance to Oklahoma businesses interested in selling products and services to federal, state and local governments and other highly

structured markets.

The website for Career Tech Business and Industry Services can be found at: <http://www.okcareertech.org/main/busind.htm>.

### CAREER TECH-AGRICULTURAL BUSINESS MANAGEMENT (ABM)

ABM provides customized business management education to adults involved in *agriculture* and related business in Oklahoma. A curriculum of agricultural business classes is available at multiple locations throughout Oklahoma. This program combines classroom experience with practical application to help Oklahomans improve the skills they use in managing farm, ranch, and agricultural-based business. The main objective of the Agricultural Business

Management program is to help agricultural families achieve their business and family goals through improved management, organization, and efficiency practices. The key component of successful management is decision analysis. Agricultural Business Management programs in Oklahoma are an approved and preferred provider of Farm Service Agency borrower training.

The website is:  
[www.okcareertech.org/aged/ABM\\_index.htm](http://www.okcareertech.org/aged/ABM_index.htm).



### INSTITUTE FOR DISPUTE RESOLUTION-OKLAHOMA AGRICULTURAL MEDIATION PROGRAM (OAMP)

OAMP is the USDA certified state mediation provider for the State of Oklahoma. OAMP is housed at the Institute for Dispute Resolution at Oklahoma State University. OAMP assists agricultural producers, their lenders, and other persons directly affected by the actions of USDA re-

solve disputes. Authorized by the Agricultural Credit Act of 1987 and Oklahoma statutes, mediation is an effective way to settle disputes in many different USDA program areas, including farm loans and farm programs, and agricultural credit issues. OAMP can also assist rural

Oklahomans with resolving a wide variety of issues that affect their daily lives. OAMP can be found at: <http://ok.gov/mediation/> or call 1-800-248-5465.

## KERR CENTER FOR SUSTAINABLE AGRICULTURE



Located in Poteau Oklahoma, the business of the Kerr Center is agricultural education. The communications program is responsible for disseminating information about issues in *sustainable agriculture* and food policy, as well as Kerr Center events and programs. Numerous Kerr Center events and programs are offered on farm marketing, sustainable practices, and creating *value-added farm products*.

In 1998, the Oklahoma Producer Grant Program was created to offer Oklahoma farmers and ranchers grants for researching or demonstrating innovative farming practices. The program awards grants to farmers and ranchers in every part of the state. Projects have addressed many areas important to a *sustainable agriculture*, including improving water quality, trying innovative marketing strategies, *organic*

farming practices, and new adapted crops for Oklahoma. The program also involves ag specialists from OSU Cooperative Extension, National Resource Conservation Service and other non-profit organizations in the state. The Kerr Center can be located at: [www.kerrcenter.com/](http://www.kerrcenter.com/)

## OKLAHOMA DEPARTMENT OF AGRICULTURE-ENHANCEMENT AND DIVERSIFICATION PROGRAM

The Oklahoma *Agriculture Enhancement and Diversification Program* provide funds in the form of loans or grants for the purpose of expanding the state's value added processing sector and to encourage farm diversification. Funds, provided on a cost-share basis, must be

used for marketing and utilization, cooperative marketing, farm diversification, and basic and applied research. All funding proposals must clearly demonstrate the ability to directly benefit Oklahoma farmers and ranchers.

More information can be found at: <http://www.oda.state.ok.us/mktdevloans.htm>.

## OKLAHOMA STATE UNIVERSITY-COOPERATIVE EXTENSION SERVICE

EVERY COUNTY  
IN OKLAHOMA  
HAS  
COOPERATIVE  
EXTENSION  
PERSONNEL.

Cooperative Extension Service is the portal into Oklahoma State University's Division of Agricultural Science and Natural Resources. Every county in Oklahoma has Cooperative Extension personnel. County personnel can call upon state, district, and area Extension specialists who develop programs based on science-based, objective information to help Oklahomans solve problems, promote leader-

ship, and manage resources wisely. In addition, numerous on-line publications on the business and growing of plants, animals, and food products can be found on the website, as well as an office locator at: [www2.dasnr.okstate.edu/](http://www2.dasnr.okstate.edu/)

Extension programs focus on:

- Increasing opportunities for agricultural *enterprises*

- Natural resources and environmental management
- Food, nutrition, health and safety education
- Youth, family and community development.





## UNITED STATES DEPARTMENT OF AGRICULTURE-RURAL DEVELOPMENT (RD)

RD financial programs support and promote economic development by supporting loans to businesses through banks and community-managed lending pools. They offer technical assistance and information to help agricultural and other cooperatives get started and improve the effectiveness of their member services. Some of the programs that may be useful to people with disabilities working in *agriculture* include:

Rural Business-Cooperative Program: Administers the Business and Industry Loans Program (B & I), *Value-Added* Producer Grants (VAPG), Rural *Enterprise* Grants, Rural Business Opportunity Grants, and Intermediary Lending Programs, among others. Although many of the grants target organizations and government institutions, the Business and Industry Loans Program and *Value-Added* Producer Grants are available to individuals.

Rural Housing Program: Administers low interest loans and/or

grants for building single family residences, and housing and repair grants for rehabilitation of homes for disability access or health.

Oklahoma Rural Development can be found at: [www.rurdev.usda.gov/ok/](http://www.rurdev.usda.gov/ok/)

## OKLAHOMA WORK INCENTIVES PLANNING AND ASSISTANCE PROJECT (OWIPA)

Located in Norman at OU's National Center for Disability Education and Research, the Oklahoma *Work Incentives* Planning and Assistance Project (OWIPA) is funded by the Social Security Administration to assist individuals with disabilities who are receiving Supplemental Security Income (SSI), Social Security Disability Insurance (SSDI), and Medicare or Medicaid benefits. OWIPA provides information on employment and *work incentives*.

OWIPA has certified Community *Work Incentives* Coordinators (CWIC's) located throughout Oklahoma. CWIC's are available for individual consultation, technical assistance and training. They are located at two Centers for Independent Living (Progressive Independence and Ability Resources) and the National Center for Disability Education and Training. CWIC's are individuals who have taken specialized training so they are able to assist individuals in understanding their SSI and SSDI benefits. They will provide individuals with the most up-to-

date information regarding employment and be able to help determine how employment will affect an individual's benefits.

OWIPA can be contacted toll-free at: 866-608-8873 or on the web at: <http://ncdet.ou.edu/socialsecurity.html>

## SOCIAL SECURITY ADMINISTRATION-OKLAHOMA AREA WORK INCENTIVES COORDINATOR (AWIC)

AWICs are available to assist Social Security and SSI disabled beneficiaries and recipients who want to start or keep working. AWICs will coordinate and/or conduct public outreach on *work incentives* in communities within their service areas, as well as, partner with organizations to promote Social

Security's employment support programs throughout Oklahoma. AWICs coordinate the processing of disability work-issue cases in their communities and welcome questions on Social Security's employment support programs, such as PASS (Plan for Achieving Self-Sufficiency).

The Oklahoma AWIC is Janette Crow, and she can be contacted by phone at: 405-605-3001, Ext. 3002. Or for more information about Social Security programs and benefits, go to the web at: <http://ssa.gov>

## CASE STUDIES

### CASE STUDY ONE: LOW VISION

Roger (not his real name) is a 70 year old rancher with macular degeneration who lives and works in northeastern Oklahoma. He raises beef cattle on *rotational grazing*, but Roger's real life passion and source of income has been breeding and training race horses. He has been involved with horses all of his life. When Roger was first diagnosed with macular degeneration, his Veteran's benefits provided him with a close-circuit television (CCTV) to enlarge printed materials so he could read. Over time, he also received orientation and mobility training in using a white cane which he often would use when going to town. In addition to his low vision diagnosis, Roger also has arthritis and joint degeneration from a lifetime of hard work.

For a number of years, these vision aids were the only accommodations Roger needed for continuing his ranch operation. Although he could no longer drive in the community, he was still able to drive his truck and *tractor* around the ranch. Eventually, as his vision deteriorated, he began having difficulty moving around the ranch and handling chores. He began running into fencing with his *tractor* or truck where he thought the gates were located, and he was afraid he might drive into one of the small ponds on the property. Fortunately, he had not become so disoriented that he could not get back to the ranch house. Roger was also having problems in the barn with being able to safely enter or leave stalls, especially with stallions, to put feed and water in the stall. He was also tripping over watering hoses, or having

difficulty finding rakes and shovels handy where he needed them for mucking stalls.

In 2006, Roger heard about the Oklahoma AgrAbility Project and decided to call. AgrAbility Specialists arranged to visit Roger at his ranch where they were able to observe him working and living in his home. Several priority areas of concern were identified during the visit as the AgrAbility Specialists began assessing Roger's participation in his daily routines. First, a very low level of lighting within the horse barn was observed. Second, the organization of the workspaces within the barn needed improvement. For instance, the majority of tools and equipment found within the barn and tack room were arranged haphazardly within the environment. Transitions between different flooring surfaces and levels were unclear, and posed trip hazards. Roger's safety in entering and leaving horse stalls was discussed, as well as outdoor mobility. After meeting with Roger and observing his difficulty in task performance, his continuing participation in ranch work was clearly in jeopardy. AgrAbility referred Roger to the resources and services available from the Oklahoma Department of Rehabilitation Services Visual Services (VS).

Roger was found eligible for VS services. Working cooperatively, Roger, VS, and AgrAbility were able to prioritize which barriers to work participation should be addressed. The AgrAbility staff was able to provide assistance in re-organizing the workspace and putting every tool in its cor-



rect place, making simple repairs, placing high visibility tape on rake and shovel handles, placing high visibility strips at surface and level change transition points, and painting gate posts for high visibility. Visual Services worked with an electrician to develop a new lighting plan to increase non-glare illumination in the barn, provided a mini-manure spreader to increase the ease of removing animal waste and straw from stalls, and also worked with a fabricator to place feeders and watering devices where Roger would not have to enter the stalls with the horses.

Although it took several months to make all the modifications and obtain all the needed services, Roger was finally able to implement all the changes to improve his participation in work activities and continue his cattle and horse programs. Although future vision loss is a real possibility, for now Roger is holding his own. Roger also has acknowledged learning an important lesson; that his ranch quality of life can be sustained through *assistive technology*, *environmental modifications*, and remaining flexible and adaptive to his disability. Overcoming disabling barriers to vocational participation are certainly core beliefs shared by his VS counselor and AgrAbility.

## CASE STUDY TWO: PHYSICAL DISABILITY

“SINCE IMPLEMENTING THESE MODIFICATIONS, WILLIAM IS MORE PRODUCTIVE THAN EVER.”

William (not his real name) is a 58 year old farmer in south central Oklahoma whose family has been farming in Oklahoma since the time of the land run in 1889. History, tradition, and community ties run deep in this Mennonite farming community and William was born into his calling as a farmer. When he was in his early twenties, William developed a neurological disorder which caused partial paralysis of both legs and relied on the strength of his arms to walk with forearm crutches. With progressing age, he found it more and more difficult to get into his *farm truck*, to climb up into farm machinery, or to walk around the farm yard and buildings. In order to keep working, he resorted to sitting on a platform scissor jack that his 85 year old mother or other elderly family members would manually crank to elevate William to a point where he could enter his *tractor*. It was a dangerous solution, but necessary to get through the demanding harvest season.

One day, William confided his growing concerns to a farm implement dealer who he regarded as a trustworthy friend. Recognizing the gravity of the situation, the implement dealer immediately connected William to the local office of the Oklahoma Department of Rehabilitation Services-Vocational Rehabilitation (VR). In turn, the VR counselor contacted Oklahoma AgrAbility to conduct an on-site farm assessment to determine what assistive technologies, *envi-*

*ronmental modifications*, or other adaptations could be implemented to maintain William’s employment as a farmer.

The Oklahoma AgrAbility Specialist observed several barriers to William’s participation in farm work. The specialist observed William had difficulty entering his pickup truck, which he frequently used for farm business and on-the-farm work tasks. The specialist also learned that William had multiple pieces of farm machinery needed for farm operations, and even with the scissor jack, he was unable to get to the operator station of many machines. In addition, William was developing significant shoulder pain and dysfunction from years of depending on his arms for walking with canes, walkers, and crutches. William stated plainly, that he did not want to stop farming, because farming with family and neighbors was an especially important part of his heritage, his identity, and ultimately his feeling of purpose.

In conjunction with VR, Oklahoma AgrAbility presented several ideas to William in adapting the farm environment. William was able to prioritize his needs, and it was determined that several key changes could be made using technology. First, he was provided with a lightweight scooter that would enable William to easily access the community, as well as for “good weather” farm yard mobility. Second, William’s pickup was modified with hand controls, a seat lift, and wheelchair lift to

enable him to enter and exit the truck safely, as well as provide a means for carrying his scooter. Most importantly, a customized portable man lift was designed for William by an Indiana company called Life Essentials. The portable lift could be towed with an *ATV* or pickup, and enabled William to safely enter and exit any of the farm equipment from the farm yard, machinery sheds, or in the fields.

Since implementing these modifications, William is more productive than ever. He has been able to reap the pleasure of tilling, *planting*, and *harvesting* his abundant alfalfa and wheat fields, as well as checking winter stocker cattle from his pickup. Above all, William remains intact in the productive fabric of farm community life, and that is the greatest benefit of all.



## GLOSSARY OF TERMS

### A

Adaptive device - any piece of equipment designed to improve the function of a body part. Examples include standing tables and special spoons that can be used by people with weak hands or poor muscle control.

Agri-business - farming as big business, including the production, processing, and distribution of farm products, manufacture of farm machinery, equipment, and supplies.

Agriculture - The science, art, and business of cultivating the soil, producing crops, and raising livestock.

Agrotourism - the practice of touring agricultural areas to see farms and often to participate in farm activities. Also agritourism.

Assistive technology - *products, devices or equipment, whether acquired commercially, modified or customized, that are used to maintain, increase or improve the functional capabilities of individuals with disabilities.*

ATV (all-terrain vehicle) - a gasoline powered, single rider, off road vehicle running on three or four wheels.

Auger - a large screw tool for boring holes, or used to move crop materials from one height to another.

### B

Bale carrier - a variety of different manufactured devices used to carry large hay bales in round or rectangular forms.

Bio-fuel - any solid, liquid, or gaseous fuel produced from organic (once-living) matter.

Bio-mass - plant materials and animal waste used as fuel.

Business plan - a prepared document stating the mission, goals, and objectives of a business, a systematic arrangement of details about a proposed business.

### C

Capital - Wealth in the form of money or property, used or accumulated in a business by a person, partnership, or corporation.

Chisel - agricultural tool drawn behind a tractor used to break up compacted soil.

Combine - a power-operated harvesting machine that cuts, threshes, and cleans grain.

Commodity crops - An agricultural based transportable article of trade or commerce, such as corn, wheat, cotton, sugar, etc.; traded in global markets.

Competency - having knowledge, skills, and beliefs requisite to being qualified and fit for practice.

Concentrated animal-feeding operation - the practice of raising farm animals in confinement at high stocking density, where a farm operates as a factory. A practice typical in industrial farming by agribusinesses, also known as factory farming.

Corporate farm - a type of farm where a group of individuals unite or combine into one legal body having its own rights, privileges, and liabilities distinct from those of the individual members. Contrasted with family farmer.

Crop insurance - a way to indemnify against a specified crop loss in return for paying a premium.

Cube feeder - also known as a cake

feeder, it is a container designed to carry dry feed into the field and can be emptied using gravity, or powered by an auger, to dispense the feed to be consumed by livestock.

### D

Direct marketing - a method of directly selling *farm* grown products from the *farm* and eliminating intermediaries in the supply chain, i.e. conveying *farm* products into the commodities market. A marketing strategy that allows the farmer to keep all profit from the sale.

### E

Enterprise - a business undertaking showing initiative, imagination, and willingness to take risks.

Environmental modifications - physical adaptations to a house, place of residence, vehicle, or work site, i.e. a ramp for accessibility.

Ergonomic tool - Environmental modifications-physical adaptations to a house, place of residence, vehicle, or work site, i.e. a ramp for accessibility.

### F

Fallow - plowed land, but left unseeded during a growing season.

Farm - a tract of land cultivated for the purpose of agricultural production; fields, buildings, animals, and personnel pertaining to the farm.

Farm truck - a truck which is used primarily to serve a farming business or complete farming work.

Feasibility study - a study of whether a project or idea is capable of being accomplished; including identifying potential markets and financial viability.

