ORDER INSTRUCTIONS
2010

We want you to be happy with your building. We have written these instructions to help you fill out our contract and to explain why we need this information. If in doubt, please call your salesperson. They can answer any questions you might have, or find someone who can.

I.A. How to make sure you get what you want.

1. Who are you, where does your building go, and who will own it?
2. What building code should we use to design your building?
3. What building code is most important?
4. What numbers do Spirco engineers want and why?
5. Why did MBMA come up with different numbers than the local building code official?
6. How can nearby buildings, hills, and trees affect your building and what do the Spirco engineers need to know about them?
7. How will the building be used and what is its importance?
8. What is the building use category?
9. What are exposure factors?
10. What's serviceability and why do the Spirco engineers need to know?
11. How fast does the wind blow?
12. What's the wind exposure and enclosure type?
13. Why is ground snow load not your roof snow load?
14. What's the snow exposure factor?
15. What are collateral loads?
16. Heavy loads and how Spirco engineers design your building to hold them up.
17. If an earthquake hits, will your building be OK?
18. What do the Spirco engineers need to know if you want to use something besides the standard metal roof?
19. What kind of walls do you use?
20. Why won't Spirco engineers design your slab and footings? If they won't, who will?
21. Additional information so we know what you want.

I.B. Additional Information Sheets

I.C. Figures

I.D. Spirco example contract

I.E. Explanation of contract

I.F. Contract Process

I.G. MBMA Climatological Data

1. Who are you, where does your building go, and who will own it?

Please provide the information below on the contract. If there is a question, we may need to talk with you quickly to keep production on schedule.

1

Name: _____
Business name: _____
Address: _____
City, State, and Zip: _____, _____ _____
Phone: _____
Fax: _____
E-mail: _____

2

Please give us your end-user's name, address, city, county, state, zip, and type of business.

Name:
Business name:
Address:
City, State, and Zip:

Project Location: City:
County:
State:
Use:

3

We have some categories for use.

NUMBER		CLASSIFICATION
1		Agricultural Structures
	1.A	On Farm Commodity Storage
	1.B	All other farm structures (barns, sheds, workshops)
2		Manufacturing
	2.A	Production
	2.B	Warehousing/Vehicle Storage
	2.C	Equipment Service/Repair (except hangars)
3		Commercial
	3.A	Retail Stores
	3.B	Warehousing & Storage
	3.C	Hangars
	3.D	Warehousing/Freight Terminals
	3.E	Offices & Banks
	3.F	Commercial Garages & Repair Stations
4		Community
	4.A	Recreational/Cultural/Assembly
	4.B	Educational, including supporting facilities
	4.C	Hospital & Health Treatment
	4.D	Houses of Worship, excluding schools/recreational
	4.E	Government Administration & Public Service
	4.F	Transportation
	4.G	Residential/Lodging/Apartments/Residential Garages
	4.H	Correctional Facilities
5		Government for Export
6		All other

This may seem confusing. Call your salesperson and get the definitions if you're not certain. We really do use this information. If your building has several uses, like an office area, a shop, and a shipping warehouse, please tell us all of the uses.

2. What building code should we use to design your building?

We use the building code that your town or county uses. We don't have enough people to keep track of all the changes made by each town and know when they adopt new codes. Many cities and counties issue modifications of the national codes. Some counties and cities adopt the revision immediately. Some are one or two revisions behind. We're good, but not good enough to keep track of all this. We need your help.

The national or model codes are:	UBC (Uniform Building Code) BOCA (Building Officials and Code Administrators) SBC (Standard Building Codes) IBC (International Building Code)
State Codes include:	North Carolina, Kentucky, Florida, Michigan, and Ohio to name a few
Local codes include:	New York City, Los Angeles County and others

Please call the building inspector for the county or city where this building is going to be built. Ask them for the information below and provide it on the contract:

Building inspector's name_____ phone_____
National Code (please check)____UBC____BOCA____SBC____IBC Year of code revision_____
State Code, if applicable_____ Local Code, if applicable_____ Year_____
Are there local amendments to the code?____yes ____no. If yes, how do we obtain a copy?_____
Who is the local building inspection manager, building official or plans examiner? How do we contact him by phone?_____ _____

5

3. What building code is most important?

There are many different building codes as noted above. IBC is becoming the predominant code across the country. Many states are basing their state codes on the IBC. Some states enforce the same code statewide. Some allow local codes. Others allow local modifications of the national codes.

Some rules that affect your building are:

- Fire Code provisions for public, hospital and emergency buildings
- Life Safety Code provisions for industrial and public buildings
- Zoning, Land Use, Historic District and Special Use District regulations
- Handicap Access regulations
- Insurance requirements
- Entergy Codes

If the building you contracted for and we ship doesn't meet your local code requirement you could have a big problem getting all your permits. We don't want this to happen to you. We request that you check on the code situation before we design your building.

Here is what you can do to be sure of the codes:

- Check to see which County it lies in.
- Check to see if the lot is inside City limits.
- Call the County (Township) building inspector's office. Ask which code they enforce. Get the name and date of the last national code revision. If there are local amendments, get a copy of them.
- Call the County building official and verify that he says the same thing about the codes.
- After the building official tells you all of this, write down what he said, his name and date. Then ask who handles permits and inspections for the City if the lot is inside the city limits.
- Do exactly the same things if there is a City building code enforcement office. Ask the City which code is required.
- If the building is for a church or school, hospital or public use, call the State Fire Marshal. Ask him about special fire code and Life Safety Code requirements.
- If the building will house, process, or use flammable, explosive, toxic, or infectious materials, check with the insurance agent of the customer.
- Give the Spirco Salesperson all of the collected information.

- Before you sign the contract, you need to check on permit requirements. Spirco needs this information to design your building. It is possible to place your building on "permit hold" pending approval of zoning, site design, handicap access, and other approvals.

Spirco engineers have copies of the national codes, most of the state codes, and some of the local codes. What we cannot track are all of the local code amendments. When you find out that a local code applies, please check to see if we have a copy. If not, purchase a copy and send it to us. If you don't check with us and we do not have a copy of the required code, your building may be delayed until we can obtain one.

Spirco engineers will determine whether the national code or the local amendments are more stringent. We will design to the most stringent applicable requirements.

Some local authorities have special seismic or structural requirements. Please ask whether the local amendments include these special design provisions. We will need a copy of those requirements as well.

4. What numbers do Spirco engineers want and why?

The codes tell us what minimum loads to use. These include dead, wind, live, seismic, ice and snow, collateral and auxiliary. Here are some basic definitions of these loads:

Dead: For our purposes this is the weight of the metal building only.

Wind: 7 9 10 Wind applies pressure and suction on the building. This is the most important load for many metal buildings. Some owners ask us to use wind loads higher than the code requires, for extra safety. If your site is near hurricane prone coastlines, we need to know the distance from the building to the oceanline. In Florida and certain gulf coast locations there are special requirements. We need to know if there are any buildings, trees, or hills nearby to apply the wind loads properly.

Live: 11 12 These are the loads produced by occupancy or maintenance of a building or structure. Live loads are from occupants, workers, equipment, or material during maintenance or movable objects. Live loads do not include environmental loads such as snow, wind, or seismic.

Roof Live – Typical roof live is 20 psf and may be reduced if allowed by the design code. The reduction is based on tributary area that the member supports.

Floor Live – This load is based on the floor use. For example, an office area would have less load than a heavy storage area. As standard practice, Spirco does not reduce floor live loads.

21 *Seismic:* These loads are created on the building by an earthquake. It is important to provide us with the weight of any material going on your building. The heavier the material the larger the seismic loads become.

13 *Ice and Snow:* When snow builds up (called a snowdrift) an increase in loading results. We need to know about the buildings, trees, and hills nearby that will affect this build up. When other buildings are close by or attached to the new building ice and snow may be real problems. There is a difference between snow and ice buildup on a "warm roof" and a "cold roof". Please tell us if your building will be heated. Many locations have different ground snow loads in the hills than in the valleys, so please consult the local authorities for loads.

17 *Collateral:* These loads are sometimes called dead loads, but we define dead load as the metal building only. Collateral loads are the weights of such things as insulation, ceiling, lights, heating and cooling systems, sprinkler pipes, and electrical cable trays. Even if you don't plan to add these now, it would be a shame if your building needed modifications to support these items later. It is best to give us a collateral load to design your building with that will cover current and future uses.

18 *Auxiliary:* These are heavy loads that hang from or lean against your building. Some of these include: hoists, cranes, block and tackle to lift heavy parts, rooftop heating/cooling units, church steeples, grain, cotton seed, signs, and heavy piping for manufacturing.

5. Why did MBMA come up with different numbers than the local building code official?

We belong to the Metal Building Manufacturer's Association (MBMA). They publish a list of minimum loads by county and state, even listing some foreign countries. Copies of the MBMA 2006 edition's loads are contained in Appendix A. These loads are minimum guidelines for IBC. You may need a copy of the MBMA 1996 edition's loads, which are minimum guidelines for BOCA and SBC. If you don't have a copy, we can provide a copy for your reference. Loading for UBC should be taken from the code and verified by your local building official. The state or local codes and local modifications may require heavier loads. MBMA loads are a check to determine the minimum requirements and may not always meet your local code requirements. Therefore, in all cases your local building code official should be consulted.

6. How can nearby buildings, hills, and trees affect your building and what do the Spirco Engineers need to know about them?

9 In open terrain with no adjacent structures or hills, the wind loads are at there highest and the snow loads may be reduced. If evergreen trees (conifers) surround the building, it is sheltered and your roof will hold more snow and may have a reduced wind. If the building is attached to or near a taller building, tree line or hill, your roof will hold more snow. If the building is heated, snowmelt will reduce the loads. Unheated buildings get higher snow loads. We use snow exposure factors, importance factors, and heated roof factors to determine the roof snow load. We use exposure factors, topography factors, and importance factors to determine the wind load. Therefore, the surroundings affect the design of your building.

14

26 If a taller building is within 20 feet of your building, we have to calculate snowdrift. Look at Figure 1A, 1A-1, and 1B for examples of snowdrift and unbalanced snow loads. In addition, a building on a hill can require an increased wind load to be applied to the building. Provide us with the information on Figures 5 and 6 when there are existing buildings or structures within 20 feet of your building.

10 If your building is located on the upper half of an isolated hill or escarpment, IBC may require your building to have an increased wind load. The term for this is topography effects. If the location of your building meets all the requirements given below then we must be provided with the information in Figure 7.

Requirements: 1. The hill or escarpment is 60 feet or higher in exposure B or 30 feet or higher if located in exp. C;
2. The maximum average slope of the hill exceeds 10 percent; and
3. The hill or escarpment is unobstructed upwind by other such topographic features for a distance from the high point of 50 times the height of the hill or one mile, whichever is less.

7. How will the building be used and what is its importance?

Each code has importance factors that must be applied to the different loads. The importance factors are based on the building use or occupancy. A building that has a higher occupancy typically has a higher importance factor. To determine the importance factors required for your building you need to know the following:

- What building code is required? 5
- What will your building be used for? 3 4
- How many people will be in the building? 3 4
- How many in the largest room at any time? 3 4
- Are flammable, toxic or hazardous materials stored, produced or used in the building? 3 4
- Is this building crucial to national defense or emergency response? 3 4
- Will the building be used by Civil Defense as a disaster shelter? 3 4
- Is the building part of a power generating or distributing system? 3 4

The following table is a summary of the national codes importance factors. If local codes have special requirements, this information must be provided on our contract.

SPIRCO

4,8,16,22

IMPORTANCE FACTORS PER CODE

Occupancy	Nature of Occupancy		Seismic Factor, I_E	Snow Factor, I_S	Wind Factor, I_W
Standard Building	Buildings and other structures except those listed in the below categories	SBC	N/A	1.0	1.0
		IBC	1.0	1.0	1.0
		BOCA[1]	N/A	1.0	1.0*/1.10**
		UBC	1.0	1.0	1.0
High Occupancy Buildings	Buildings and other structures that represent a substantial hazard to human life in the event of a failure including, but not limited to:	SBC	N/A	1.10	1.15
	Buildings and other structures where more than 300 people congregate in one area Buildings and other structures with elementary school, secondary school or day-care facilities with capacity greater than 250 Buildings and other structures with a capacity greater than 500 for colleges or adult education facilities	IBC	1.25	1.10	1.15
	Health care facilities with a capacity of 50 or more resident patients but not having surgery or emergency treatment facilities Jails and detention centers Any other occupancy with an occupant load greater than 5,000	BOCA[1]	N/A	1.10	1.15*/1.23**
	Power-generating stations, water treatment for potable water, waste water treatment facilities and other public utility facilities not included in the '-Essential Facilities category Buildings and other structures not included in the Essential Facilities category containing sufficient quantities on toxic or explosive substances to be dangerous to the public if released	UBC	1.0	1.15	1.0
Essential Facilities	Buildings and other structures designated as essential facilities including, but not limited to:	SBC	N/A	1.20	1.15
	Hospitals and other health care facilities having surgery or emergency treatment facilities Fire, rescue and police stations and emergency vehicle garages Designated earthquake, hurricane or other emergency shelters Designated emergency preparedness, communication, and operation centers and other facilities required for emergency response	IBC	1.50	1.20	1.15
	Power-generating station and other public utility facilities required as emergency back up facilities for Essential Facilities structures Structures containing highly toxic materials Aviation control towers, air traffic control centers and emergency aircraft hangars	BOCA[1]	N/A	1.20	1.15*/1.23**
	Buildings and other structures having critical national defense functions Water treatment facilities required to maintain water pressure for fire suppression	UBC	1.25	1.15	1.15
Low Hazard Buildings	Buildings and other structures that represent a low hazard to human life in the event of a failure including, but not limited to:	SBC	N/A	0.80	0.90
	Agricultural facilities	IBC	1.0	0.80	0.87[2]
	Certain temporary facilities	BOCA[1]	N/A	0.80	0.90*/1.0**
	Minor storage facilities	UBC	1.0	0.90	1.0

1. For regions between the hurricane oceanline and 100 miles inland, the importance factor shall be determined by linear interpolation.
2. In hurricane regions with V>100 mph, the importance factor shall be 0.77.

* 100 miles from oceanline

** At hurricane oceanline

8. What is the building use category?

3 Sometimes, the building use category is not clear-cut. If the building is an office and warehouse all inside one structure, then the percentage of each use determines the overall use. Please just tell your salesperson which uses are in the building and he will help you figure the proper category.

9. What are exposure factors?

We use snow and wind exposure factors to determine the design loads on your building. These are different depending on your site conditions and the building code. Exposure factors tell us what your building site is like so we can design it properly. Consult your engineer of record or the local building official to determine what exposures to use.

9 Figure 2 gives you the national code wind exposure definitions and section 12 gives a short discussion of it. We ask that you give us the wind exposure of your building site so we can properly apply the wind in the design.

14 Section 14 gives an explanation of snow exposures and the national code snow exposure definitions and factors. We ask that you give us the snow exposure your building is in (partially, fully, or sheltered) and we will determine the snow exposure factor to use.

10 26 We also need information about nearby buildings, hills, and trees. We use this information to calculate snow loads and wind loads.

10. What's serviceability and why do the Spirco engineers need to know?

We design buildings for strength, based on the code for the building location. Additionally the design is per the use requirements. We must also design for serviceability. Serviceability concerns are:

27

- Amount of bending we build into prefabricated members (camber)
- Expansion and contraction
- Amount of movement under load (deflection, vibration and drift)
- Connection slippage and gradual deformation
- Corrosion

We ask the purchaser to help define many of the above items. We discuss camber, when appropriate. We use our MBMA guidelines for movements under load. We design to meet the code requirements, but ask for customer input.

Review the following tables and let us know if you want something different. We use our standards unless you have a special requirement. Deflections shown are the worst tolerable limit. Glass breakage, masonry cracking, and building noise can all be reduced by limiting the deflections.

The following tables are Spirco Standards as noted on the contract, which have been taken from the AISC Steel Design Guide # 3. For any material or case not listed, the serviceability requirements must be given to us on the contract.

Table 3.1
Serviceability Considerations - Roofing

27

ROOFING TYPE	*STRUCTURAL ELEMENT*	*DEFORMATION*	*RECOMMENDATION*	*LOADING*
METAL ROOFS THROUGH FASTENER TYPE	EXPANSION JOINTS	HORIZONTAL MOVEMENT	100′ TO 200′ Max.	THERMAL
	ROOF	SLOPE	½″ /FT. Min.	DRAINAGE
	PURLIN	VERTICAL DEFLECTION	L/150 Max.	SNOW LOAD
	PURLIN	VERTICAL DEFLECTION	POSITIVE DRAINAGE	DL + .5 × SNOW LOAD DL + 5 PSF (Min)
METAL ROOFS STANDING SEAM	EXPANSION JOINTS	HORIZONTAL MOVEMENT	150′ TO 200′ Max.	THERMAL
	ROOF	SLOPE	1/4″ /FT. Min.	DRAINAGE
	PURLIN	VERTICAL DEFLECTION	L/150 Max.	SNOW LOAD
	PURLIN	VERTICAL DEFLECTION	POSITIVE DRAINAGE	DL + .5 × SNOW LOAD DL + 5 PSF (Min)

Table 3.2
Serviceability Considerations - Cladding

27

CLADDING SUPPORT TYPE	*CLADDING TYPE AND SUPPORT ELEMENT*	*DEFORMATION*	*RECOMMENDED MAXIMUM*	*LOADING*
FOUNDATION	METAL PANELS/ BARE FRAME	DRIFT PERPENDICULAR TO WALL	H / 60 TO H / 100	10 YEAR WIND
	METAL PANELS/ GIRTS	HORIZONTAL DEFL.	L / 120	10 YEAR WIND
	METAL PANELS/ WIND COLUMNS	HORIZONTAL DEFL.	L / 120	10 YEAR WIND
	PRECAST WALLS/ BARE FRAME	DRIFT PERPENDICULAR TO WALL	H / 100	10 YEAR WIND
	UNREINFORCED MASONRY WALLS / BARE FRAME	DRIFT PERPENDICULAR TO WALL	1/16″ CRACK WIDTH * WALL BASE	10 YEAR WIND
	REINFORCED MASONRY WALLS / BARE FRAME	DRIFT PERPENDICULAR TO WALL	H / 200 †	10 YEAR WIND
	MASONRY WALLS / GIRT	HORIZONTAL DEFL.	L / 240 ≤ 1.5″	10 YEAR WIND
	MASONRY WALLS / WIND COLUMNS	HORIZONTAL DEFL.	L / 240 ≤ 1.5″	10 YEAR WIND
	MASONRY WALLS / LINTEL	VERTICAL DEFL.	L / 600 ≤ 0.3″	DL + LL
	MASONRY WALLS / LINTEL	ROTATION	≤ 1 deg.	DL + LL

Notes * - 1/8” WITH PROPER DETAILING

□ - H / 100 WITH PROPER DETAILING

Additional Spirco Standard: Metal Studs with brick veneer, stucco, or dryvit horizontal deflection: H/100 to H/200 for the frame drift and L/240 for the wall members for 10 year wind.

Table 3.3
Serviceability Considerations - Ceilings & Partitions

27

FINISH TYPE	*STRUCTURAL ELEMENT*	*DEFORMATION*	*RECOMMENDED MAXIMUM*	*LOADING*
CEILING	ROOF MEMBER	VERTICAL DEFLECTION	L / 360 (PLASTERED CEILINGS)	LL OR 50 YR. SNOW
	ROOF MEMBER	VERTICAL DEFLECTION	L / 240	LL OR 50 YR. SNOW
	FLOOR BEAM / GIRDER	VERTICAL DEFLECTION	L / 360 ≤ 1″	DL
PARTITION	FRAME	LATERAL DRIFT	H / 500	10 YR. WIND
	ROOF MEMBER	VERTICAL DEFLECTION	3 / 8″ TO 1″ †	.5 × LL OR 50 YR. SNOW
	FLOOR BEAM / GIRDER	VERTICAL DEFLECTION	L / 360 ≤ 3 / 8″ TO 1″	.5 × LL
NOTES	† – DEPENDS ON PARTITION DETAILS			

Table 3.4
Serviceability Considerations - Equipment

27

EQUIPMENT TYPE	*STRUCTURAL ELEMENT*	*DEFORMATION*	*RECOMMENDED MAXIMUM*	*LOADING*
TOP RUNNING CRANES	RUNWAY SUPPORTS	TOTAL INWARD MOVEMENT†	1 / 2″	CRANE VERTICAL STATIC LOAD
	RUNWAY SUPPORTS	TOTAL OUTWARD MOVEMENT†	1″	SNOW
	RUNWAY BEAM	HORIZONTAL DEFLECTION	L / 400	CRANE LATERAL
	RUNWAY BEAM	VERTICAL DEFLECTION	L / 600; CMAA CLASS A, B, C	CRANE VERTICAL STATIC LOAD
	RUNWAY BEAM	VERTICAL DEFLECTION	L / 800; CMAA CLASS D	CRANE VERTICAL STATIC LOAD
	RUNWAY BEAM	VERTICAL DEFLECTION	L / 1000; CMAA CLASS E, F	CRANE VERTICAL STATIC LOAD
TOP RUNNING CAB OPERATED	BARE FRAME	DRIFT AT RUNWAY ELEV.	H / 240 ≤ 2″	CRANE LATERAL OR 10 YEAR WIND
TOP RUNNING PENDANT OPERATED	BARE FRAME	DRIFT AT RUNWAY ELEV.	H / 100	CRANE LATERAL OR 10 YEAR WIND
UNDERHUNG CRANE	RUNWAY FRAME	VERTICAL DEFLECTION	L / 450; CMAA CLASS A, B, C	CRANE VERTICAL
JIB CRANE	BOOM	VERTICAL DEFLECTION	L / 225	CRANE VERTICAL
NOTES	† – SUM OF BOTH RUNWAYS			

11. How fast does the wind blow?

7 Some building codes give wind speeds in fastest mile per hour. These are speeds exceeded on average only once in 50 years. They are measured at 33 feet above ground. IBC wind is based on ASCE 7, which gives the wind speeds in 3-second gusts. Wind speeds are shown in each of the national codes on maps. Special wind zones in the Smoky Mountains, along the Great Lakes, and in the Rocky Mountains are identified. Be sure to get the local building official to give you the wind load for those areas. It's a good idea to ask every time, because the city may have different design values from the surrounding county.

The design wind speed is 110 miles/hour to 140 miles/hour at the outer banks of North Carolina and the southern tip of Florida. The Atlantic and Gulf of Mexico are around 100 miles/hour from North Carolina to Corpus Christi, Texas. Most of the Texas gulf coast counties now require special certifications by specifically trained and certified engineers for wind stability. Some special requirements like South Florida, Dade and Broward counties, we cannot meet.
Some special requirements along the coasts often require the building to be designed for either water surge or flying debris or some other criteria for hurricane exposures. For coastal counties, we need to know how far the building site is from the oceanline.

9 BOCA, UBC and IBC apply wind exposures as discussed in section 12 and shown on Figure 2. BOCA and IBC use internal and external pressure coefficients, with gust response factors and many other calculations. SPIRCO engineers will do the math, if you supply the information requested on the contract.

12. What's the wind exposure and enclosure type?

9 There are wind exposure factors in the UBC, IBC and BOCA codes. SBC does not distinguish between different exposures. Figure 2 shows the exposure categories. The BOCA and IBC codes distinguish between tall, urban type obstructions, upwind and hilly terrain with significant tree cover, while the UBC does not.

6 10 BOCA and IBC also distinguish between treeless flat terrain, near large water bodies and flat, relatively unobstructed terrain much more than UBC. IBC, based on ASCE 7, may require ground elevation changes to be taken into account when your building is on a hill.

6 A hollow object with only one side open will be picked up by the wind easier than the same object with all walls solid. This is the principle wind enclosure is based on. The degree of enclosure is very important. Freight terminals, automotive service bays, and similar structures may need to be considered partially enclosed if the doors remain open. When Spirco engineers suspect the enclosure specified on the contract could be wrong, they will refer the building back to sales for questions and a costly change order could result.

30 The doors and windows that are in your building should be designed to withstand the wind loads per the applicable code. When they are not we need to know. If they are not designed to withstand the wind loads, we have to consider them open. Glass has a special requirement in wind borne debris areas, with wind speeds greater than 110 mph and within one mile of a hurricane coast, or any area with wind speeds greater than 120 mph, in the IBC. Glass in these areas must be impact resistant or protected with an impact-resisting standard. You should consult your engineer of record or door / window manufacturer to help determine these requirements.

6 ASCE 7 defines an open building as one with all walls at least 80% open. It defines a partially enclosed building as one that meets all the following:

- In one wall the openings exceed in area all of the rest of the building by 10%
- more than 4 square feet are open,
- 1% of the wall area, whichever is greater,
- and the percentage of openings in the roof and other walls does not exceed 20%.

Figure 3 illustrates the differences in definition and use between codes.

13. Why is ground snow load not your roof snow load?

13 The order and contract forms ask for ground snow load or roof snow load. Most codes give a maximum determined by years of observations from snow gauges in open areas. It may not correct for hilly, forested, or urban areas.

There are differences between roof snow loads and ground snow loads. We use the importance factor, exposure factor, and thermal factor to adjust the ground snow to determine the roof snow. If the building is all by itself, surrounded by flat prairie, wind can keeps the snow off the roof. Therefore, the roof snow is reduced. If there are trees, buildings and hills nearby, the snow doesn't blow of as easily. Therefore, the roof snow is larger than the open case. Fully sheltered roofs with tall tree cover and hills don't get much wind or sun. Therefore, the roof snow can become very large.

14. What's the snow exposure factor?

14 The snow exposure definitions are listed below. The snow exposure factor is multiplied by the ground snow and other roof factors to determine the roof snow load. It is dependent on wind, terrain, and tall obstructions like trees, hills, and buildings.

Snow exposure may change. You might place your building next to a clear-cut pine forest. In 15 years, the forest would be growing back and the exposure factor may rise from 0.8 to 1.2. Spirco engineers can only certify and design to ground snow loads according to the code and exposure that is sent to us when we design the building. You should carefully think over the snow exposure you want to use.

15 Buildings that are heated typically have warmer roofs. Warm roofs melt snow faster and drop snow easily. If the roof is only heated on certain work days or not at all, the cold roof factor should be used to increase snow loads. It is important for our engineers to know if the building will be heated or not. Table 1.5.2 from the 2002 MBMA shows some examples of typically heated or unheated buildings.

We also check unbalanced snow loads like shown on Figures 1A, 1A-1 and 1B. We do drift calculations for the windward and leeward roof as shown on the bottom of Figure 1B. Where snow can fall from a high roof to a lower roof, we add a sliding snow surcharge.

SNOW EXPOSURE DEFINITIONS

14

Partially Exposed: Roofs not fully exposed or sheltered.

Fully Exposed: Roofs exposed on all sides with no shelter, generally open terrain extending one half mile or more. Roofs with large mechanical equipment or other obstructions are not included in this category.

Sheltered: Roofs located in densely forested areas that qualify as an obstruction (typically conifer trees). An obstruction is defined as being taller than the roof and within a distance of 10 times the height of the obstruction above the roof.

SNOW EXPOSURE FACTORS

Snow Exposure (C_e)				
	Terrain Category	Partially Exposed	Fully Exposed	Sheltered
IBC SBC BOCA	A	1.1	N/A	1.3
	B	1.0	0.9	1.2
	C	1.0	0.9	1.1
	D	0.9	0.8	1.0
UBC	N/A	0.7	0.6	0.9

15

Table 1.5.2
Typical Heated and Unheated Building Usage

Heated (C_t = 1.0)	Unheated (C_t = 1.2)
Manufacturing Production	Agricultural Buildings
Manufacturing Equipment Service	On-Farm Structures
Commercial Retail Stores	Commercial Warehouse/Freight Terminals[1]
Commercial Offices and Banks	Some recreational facilities such as ice rinks, gyms, field houses, exhibition buildings, fair buildings, etc.
Commercial Garages and Service Stations	Some warehouse facilities such as raw material storage, mini warehouses parking and vehicle storage, etc.[1]
Educational Complexes	Refrigerated Storage Facilities
Hospital and Treatment Facilities	
Churches	
Government Administration & Service	
Transportation Terminals	
Residential	
Some recreational facilities such as bowling lanes, theaters, museums, clubs studios, etc.	
Some warehouse facilities such as retail storage, food storage, parts distribution and storage, etc.[1]	

[1] C_t = 1.1 if building kept just above freezing.

15. What are collateral loads?

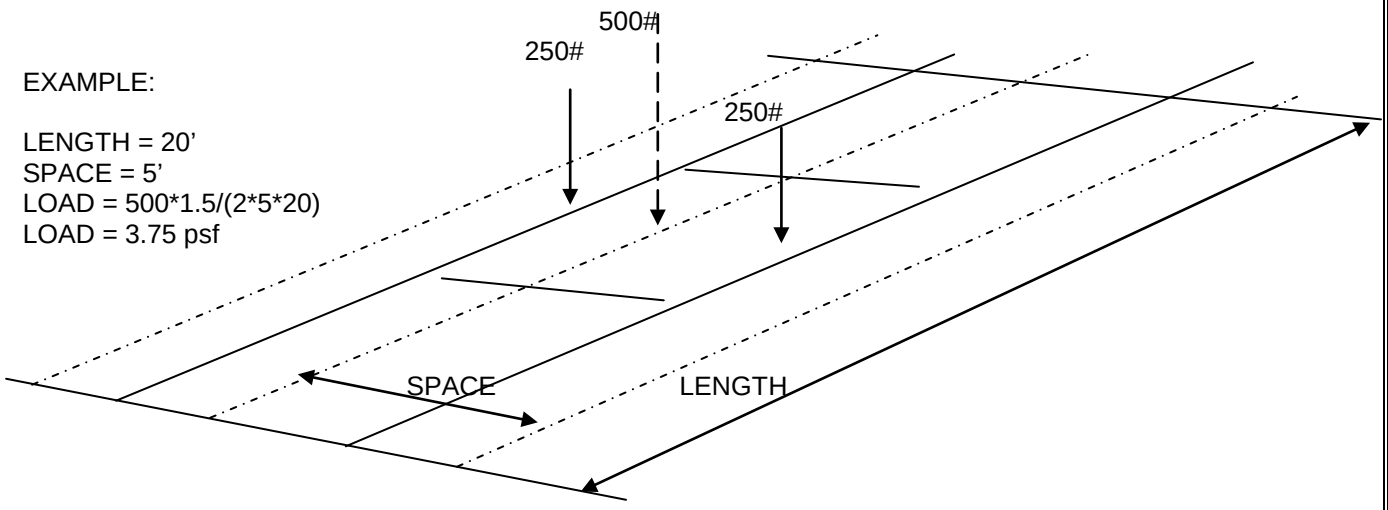
17

Collateral loads are a type of dead load. However, the only dead load we know is the weight of the metal building we are providing. We do not know what your sprinkler system or other items you might have hanging from the roof weigh. We need to know the weight of any lighting, ceiling, sprinkler systems, or other load inducing systems you have in your building.

If a rooftop AC unit adds 500 pounds and may set on any two adjacent purlins, the equivalent uniform collateral load would be approximately:

Load in psf = 500 pounds * 1.5 / (2 purlins * purlins space in feet * purlin length in feet).

The 1.5 factor accounts for lapping of the purlins over a supporting frame. If it is a 1 bay structure, use 2 instead of 1.5.



Typical Material Weights

Material	Collateral Load, psf
Vinyl-backed insulation	0.5
Rigid insulation	1.0
Lighting	0.5
HVAC ducts, office/commercial	1.0
Sprinkler system (wet)	3.0
Sprinkler system (dry)	1.5
Acoustical fiber tile ceiling	1.0
Gypsum board ceiling (1/2")	2.0
Gypsum board ceiling (5/8")	3.0
Plywood sheathing (5/8")	2.5
Plywood sheathing (3/4")	3.0

Table 14.1 gives other types of loads our Engineers need to know about. They are not all-inclusive, but they do affect the various types of buildings listed.

16. Heavy loads and how Spirco engineers design your building to hold them up.

18 The list of special loads in table 14.1 should be considered depending on your building use. We need to know where the loads attach to the building and the weights. We believe the best way to communicate this information is to locate the item on a plan of the building and to send us catalog information about specific equipment. We can't design for what we don't know about. The quality of your project depends on good information.

SPIRCO

Table 14.1

3

UNIFORM ORDER DOCUMENTATION

Special Loads to Consider

NUMBER	CLASSIFICATION
1	Farm Structures
	• Live loads and impact loads of stored commodities, i.e. corn crib, bulk feed bins
	• Dead loads, live loads, and operating torques of screw conveyors- figure running full.
	• Impact loads of falling material
	• Dead loads, live loads and impact loads of trolley hoists hung from roof
	• Live load of live weight beef if used for on-farm slaughter (1800 pounds)
1.A	On Farm Commodity Storage
1.B	All other farm structures (barns, sheds, workshops)
	• Seismic action on loft stored live loads
	• Live loads of lofts
	• Live load of trolley hoist in maintenance shed (2200 pounds)
2	Manufacturing
	• Internal pressure of explosion
	• Live load of explosion vent frame
	• Dead loads and seismic loads of rooftop ventilation units and combustion air make-up units
	• Dead loads of interior girt supported liner panels in high bay buildings
	• Heavy header supported air curtain structures at dock doors and interior bay line divider walls
	• Freezer panel dead loads and seismic loads if girt hung
	• Potentially heavier sprinkler systems at fire hazard or storage areas
	• Crane loads
	• Roof-hung unit heaters and fan coil cooling apparatus
	• Impact loads from forklift handling of loads near frames unprotected by ballards, concrete piers or similar devices
	• Impact loads of rack storage systems that are braced by attachment to rigid frame
	• Seismic loads of rack storage systems that are braced by attachment to rigid frame
	• Dead and seismic loads from main motor control centers attached to girts
	• Dead and seismic loads of cable tray and process piping racks hung from roof
2.A	Production
	• Roof-hung unit heaters and fan coil cooling apparatus
	• Impact loads from forklift handling of loads near frames unprotected by ballards, concrete piers or similar devices
	• Impact loads of rack storage systems that are braced by attachment to rigid frame
	• Seismic loads of rack storage systems that are braced by attachment to rigid frame
	• Dead and seismic loads from main motor control centers attached to girts
	• Dead and seismic loads of cable tray and process piping racks hung from roof
2.B	Warehousing/Vehicle Storage
2.C	Equipment Service/Repair (except hangars)
	• Dead and seismic loads of overhead lube systems, exhaust vents, etc.
	• Live and impact loads from trolley hoist or army hoist pulling engines
3	Commercial
3.A	Retail Stores
3.B	Warehousing & Storage
	• Impact loads from forklift handling of loads near frames unprotected by ballards, concrete piers or similar devices
	• Impact loads of rack storage systems that are braced by attachment to rigid frame

3.C Hangars
- Hangar door dead, impact and wind loads on jambs and headers
- Live and impact loads from trolley or army hoists pulling engines and wing parts

3.D Warehousing/Freight Terminals
- Dead and seismic loadings of dock seals acting on door frames
- Dead loads of air curtains, header supported dock doors
- Impact loads from forklift handling of loads near frames unprotected by Ballard's, concrete piers or similar devices
- Impact loads of rack storage systems that are braced by attachment to rigid frame
- Dead loads of interior girt supported liner panels in high bay buildings

3.E Offices & Banks
- Collateral loads of HVAC, including coils, air handlers and units, acoustical ceilings, lighting, insulation, fire sprinklers, security camera installations, etc.

3.F Commercial Garages & Repair Stations
- Roof-hung unit heaters and fan coil cooling apparatus
- Dead loads, live loads and impact loads of trolley hoists hung from roof
- Dead and seismic loads of overhead lube systems, exhaust vents, etc.

4 Community

4.A Recreational/Cultural/Assembly
- Live, dead and impact loads (not reduced) for running tracks on cantilevered or attached mezzanine
- Impact loads of roof and girt supported basketball goals
- Dead and local seismic loads of scoreboards
- Stained glass dead and seismic
- Roof and girt supported cross or false lattice over sanctuary altar
- Stage curtains
- Purlin and girt supported sound systems
- Special smoke vent structure on roof over stage
- Roof supported vents over cooking areas
- Proscenium air curtain or deluge shower fire protection system over stage
- Bleachers attached to rigid frame
- Organ or choir loft attached to rigid frame or endwall frame
- Lighting/sound system catwalks hung from roof
- Higher importance factor in seismic, wind and snow for assembly hall

4.B Educational, including supporting facilities
- Live, dead and impact loads (not reduced) for running tracks on cantilevered or attached mezzanine
- Impact loads of roof and girt supported basketball goals
- Dead and local seismic loads of scoreboards
- Stage curtains
- Purlin and girt supported sound systems
- Special smoke vent structure on roof over stage
- Roof supported vents over cooking areas
- Proscenium air curtain or deluge shower fire protection system over stage
- Bleachers attached to rigid frame

4.C Hospital & Health Treatment
- Increased collateral loads in vicinity of corridors for heavy HVAC, gas and fluid piping and heavy duty electrical cable tray systems

4.D Houses of Worship, excluding schools/recreational
- Stained glass dead and seismic
- Roof and girt supported cross or false lattice over sanctuary altar
- Stage curtains
- Purlin and girt supported sound systems

- Special smoke vent structure on roof over stage
- Roof supported vents over cooking areas
- Proscenium air curtain or deluge shower fire protection system over stage
- Organ or choir loft attached to rigid frame or endwall frame
- Lighting/sound system catwalks hung from roof
- Higher importance factor in seismic, wind and snow for sanctuary

4.E Government Administration & Public Service
- Verify importance factor for wind, seismic and snow
- High occupant load for civil defense use may increase importance factors

4.F Transportation
- Verify importance factor for wind, seismic and snow

4.G Residential/Lodging/Apartments/Residential Garages

4.H Correctional

5 Government for Export

6 All other

17. If an earthquake hits, will your building be OK?

21 22 23

Unless the building is tall, has a mezzanine floor, a crane system or heavy roof top equipment, the design typically is not controlled by earthquake loading. The governing codes tell us the factors we need to make sure your building stands. If loads are added, heavy storage racks are added later, or we are not given proper information about internal material weights, we may not be able to design the proper restraints. We need the seismic design factors, importance factors, and soil class / profile to determine the seismic loads on the building. We need to know the weight of any exterior walls, interiors walls, or additional materials to properly load the building. The following tables, can help you determine the soil class / profile.

23

SOIL CLASS / PROFILE

IBC	
Site Class	Soil Profile*
A	Hard rock
B	Rock
C	Very dense soil & soft rock
D	Stiff soil profile
E	Soft soil profile
F	Very soft, special requirements

- Code must be consulted for additional information. Data to determine soil profile type must be attained from site-specific investigation and testing.

NOTE: When soil properties are not known in sufficient detail to determine the site class, Site Class D shall be used unless the building official determines that Site Class E or F is likely to be present at the site.

SBC, BOCA		
Soil Profile	Description*	S

S_1	Rock or less than 200' of stiff soil conditions overlying rock	1.0
S_2	Greater than 200' of stiff soil conditions overlying rock	1.2
S_3	20' to 40' of medium-stiff clay	1.5
S_4	Soft clay	2.0

- Code must be consulted for additional information. Data to determine soil profile type must be attained from site-specific investigation and testing.

NOTE: When soil properties are not known in sufficient detail to determine the soil profile type or when soil profile does not fit any of the four types, use S_4, S=2.

UBC	
Soil Profile	Description*
S_A	Hard rock
S_B	Rock
S_C	Very dense soil & soft rock
S_D	Stiff soil profile
S_E	Soft soil profile
S_F	Very soft, special requirements

- Code must be consulted for additional information. Data to determine soil profile type must be attained from site-specific investigation and testing.

NOTE: When soil properties are not known in sufficient detail to determine the soil profile, type S_D shall be used in seismic zones 3 and 4, and type S_E shall be used in seismic zones 1, 2A, and 2B.

28 29

18. What do the Spirco engineers need to know if you want use something besides the standard metal roof?

Standing seam metal roofs and clay tile roofs are attractive or you may want to build your own plywood and shingle roof. Alternatively, you may want to add changes in roofline, dormers, overbuild accents and mansards or overhangs. We have to know all this information to properly design your building.

The information should include:

- Type, weights, and attachment of all material used
- Precise locations of hips, valleys and dormers
- Type of roof system, including manufacturer's data sheets
- Allowable loads and spans for material used
- Maximum allowable deflection/deformation allowed to prevent damage to the material

19. What kind of walls do you use?

We like to use flush girts on the endwalls of standard metal buildings. We like to use bypass girts on the sidewalls for economy. Drawings of the two types are shown on Figure 4. If you are mixing materials and construction types, you want to think carefully about the choice of flush or bypass girts.

If you use masonry or glass part of the way up a wall, you usually need bypass on that wall to keep a straight wall line. If you want to keep the tapered column from intruding into the interior, you may choose flush. If you mix flush and masonry on a wall, you will need to build out around the exterior of the column. Pages 19, 20 and 21 are additional information sheets for you to fill out in order for us to design the building so your walls will fit.

20. Why won't Spirco engineers design your slab and footings? If they won't, who will?

Our engineers will not visit the building site, in most instances. We don't know your local soils and local building practices. Our Engineers will only be responsible for design of the metal building. The foundation should be designed by a local Registered Professional Engineer, who knows the local soils and construction practices. Call a registered Civil Engineer or Structural Engineer. Do not ask someone who is not experienced in this kind of work to do the design. We will supply a set of permit drawings for the project, so that the Engineer can design a properly dimensioned foundation. These permits will give the foundation designer the information about the building they needs. You will need to give him locations of utilities, like plumbing, and locations for heavy machinery and special items to be embedded or cast into the floors.

21. Additional information so we know what you want.

Please fill out sheets A through E and figures 5 through 7 as they apply to your building. Always fill out sheet F for your building. Sheets A, B, and C tell us how we need to design your walls. If you are going to have a mezzanine now or in the future sheet D asks for the information, we need to design your building. If you are going to put a crane in your building sheet E provides the information we need to design what you want. Sheet F tells us what colors to use where on your building. Figures 5, 6, and 7 are to tell us about your building site so we can properly apply the snow and wind loads, which will affect your building. If you fill out these pages when you ask for a quote we will be better able to get you a more accurate quote and avoid most questions, not to mention you will have the information we need to design and detail your building.

Additional Information Sheet A
Building with brick and stud walls

1. Is top of wall system supported by SPIRCO?

□ YES - Lateral support beam will be provided by SPIRCO.
□ NO - Lateral support beam will be provided by others.
What type of beam will you supply?_____
What will the beam weigh?_____lbs/foot
How will you attach the beam to the structure?_____
How high is the top of the beam? _____

2. What are the deflection criteria?

□ SPIRCO – Spirco standard (Any material that is not listed in Spirco standard. The deflections limits must be provided.)
□ Customer – specify
Support member horizontal deflection L/_____ *example: L/240*
Frame horizontal drift H/_____ *example: H/100*

3. Are walls in girt line?

□ YES
□ NO

4. What is the weight of the wall system?

_____ psf

5. Please indicate which detail on the "Wall by Others Details" sheet is applicable and what is the total thickness. If none are applicable, please provide a detailed sketch.

Sidewall – Detail # _____ Wall Thickness _____"

Endwall – Detail # _____ Wall Thickness _____"

SPIRCO

Additional Information Sheet B
Building with concrete masonry walls and tilt-up walls

6. Is top of wall system supported by SPIRCO?

□ YES - Lateral support beam will be provided by SPIRCO.
□ NO - Lateral support beam will be provided by others.
What type of beam will you supply?_____
What will the beam weigh?_____lbs/foot
How will you attach the beam to the structure?_____
How high is the top of the beam? _____

7. What are the deflection criteria?

□ SPIRCO – Spirco standard (Any material that is not listed in Spirco standard. The deflections limits must be provided.)

□ Customer – specify
Support member horizontal deflection L/_____ *example: L/240*
Frame horizontal drift H/_____ *example: H/100*

8. Can walls be used as shear walls to resist horizontal loads?
□ Yes Spirco will provide all loads imposed by the metal building components to be resisted by the shear wall.
□ No See questions 4 thru 7

9. Can we place x-bracing in all walls?
□ Yes
□ No

10. Are walls attached to the steel columns?
□ Yes
□ No *What do they attach to?*_____ *Please provide sketch..*

11. Can we flange brace the columns to the walls?
□ Yes
□ No

12. If no x-bracing or shear walls are allowed and if walls are attached to the steel columns, it shall be noted that portal frames or other alternate bracing system will be much more flexible than the wall. Walls will have to yield (crack) before any load is resisted by the portal frame unless special connections are provided between the wall and the columns.

13. Are walls in girt line?

□ YES
□ NO

14. What is the weight of the wall system?

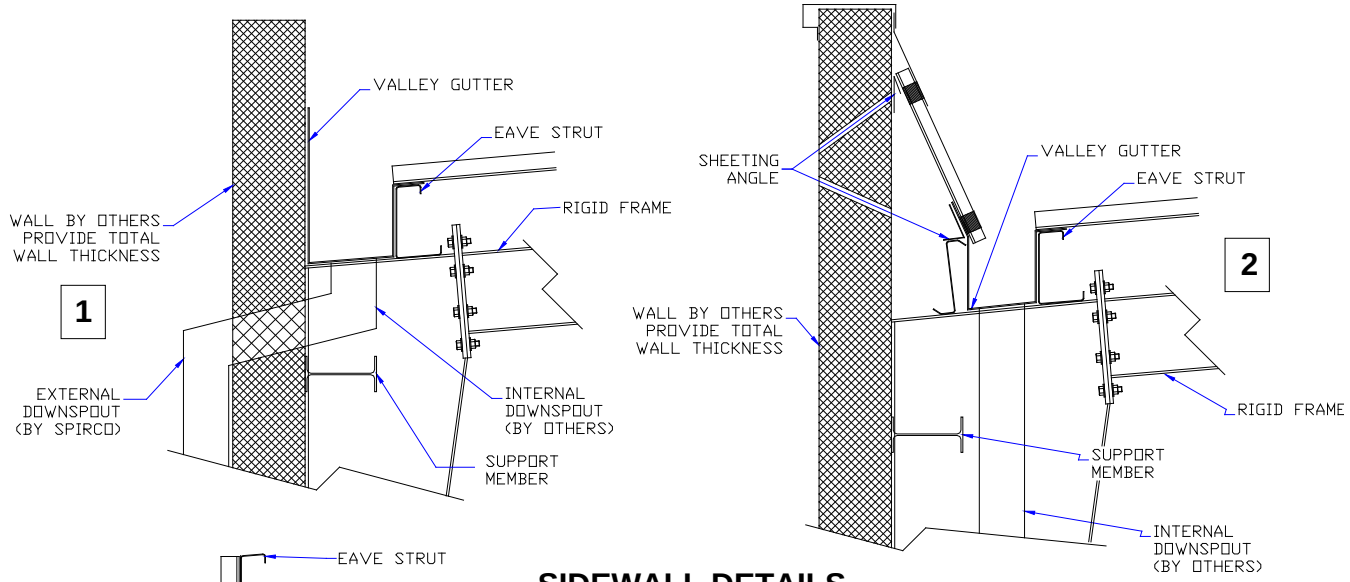
_____ psf

15. Please indicate which detail on the "Wall by Others Details" sheet is applicable and what is the total thickness. If none are applicable, please provide a detailed sketch.

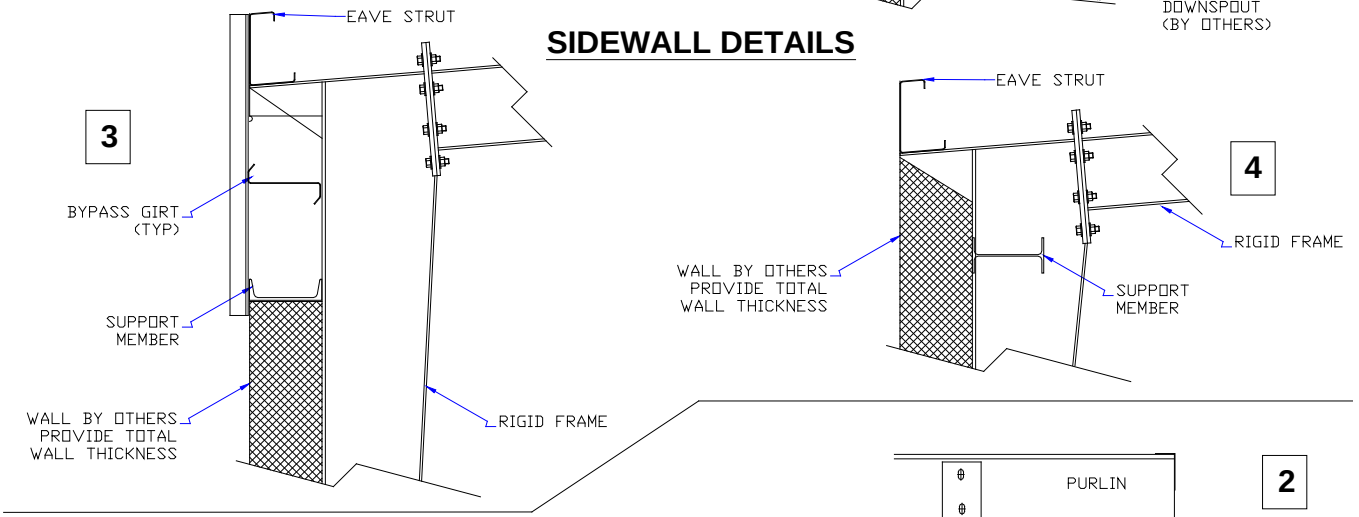
Sidewall – Detail # _____ Wall Thickness _____"

Endwall – Detail # _____ Wall Thickness _____"

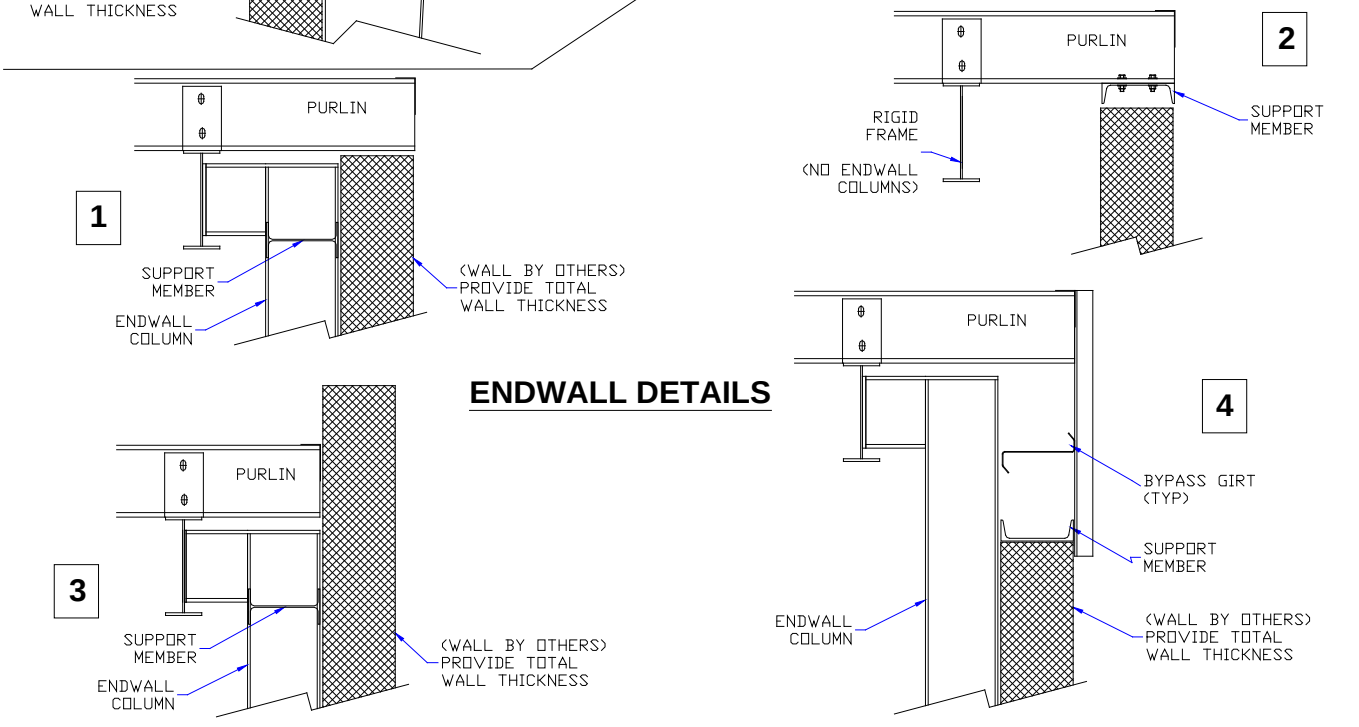
Additional Information Sheet C
Wall By Others Details



SIDEWALL DETAILS



ENDWALL DETAILS



SPIRCO

Additional Information Sheet D
Mezzanine Information

1. **What is the floor construction?**
   Provide floor thickness _____ inches and weight _____ psf.
   - ❑ Standard Concrete
   - ❑ Plywood
   - ❑ Lightweight Concrete
   - ❑ Precast concrete

2. **What is the floor framing? It is preferred that SPIRCO determines the floor framing system, unless it specifically requested by the customer.**
   - ❑ By Spirco
   - ❑ Bar joists on steel beams
   - ❑ Cold-formed sections on steel beams
   - ❑ Steel beams on steel girders
   - ❑ Other, specify_____

3. **Is live load special?**
   - ❑ Yes - specify below
   - ❑ No - see #4

4. **What is the mezzanine use?**

❑ Office	50 psf, plus allowance for partitions____ lb/ft*
❑ Light Storage	125 psf
❑ Heavy Storage	250 psf
❑ Fixed seats assembly	50 psf
❑ No seats assembly (ballroom)	100 psf
❑ Class rooms	40 psf
❑ Corridors	80 psf
❑ Other	___ psf

   * Provide location of partitions on a sketch with contract.

5. **Are there any additional loads or concentrated loads?**
   - ❑ Heavy equipment *Please sketch location and give operating weight, type &, capacity.*
   - ❑ Masonry partitions *Please sketch location*
   - ❑ Light partitions such as stud and drywalls or movable partitions *Please sketch location*
   - ❑ File rooms *Please sketch location*
   - ❑ Special equipment that may generate impact loads *Please sketch location*
   - ❑ Collateral load

6. **What is the clearance below the Mezzanine? _____Feet**

7. **What is the Clearance above the Mezzanine finished floor? _____Feet**

8. **Is mezzanine framing by Spirco? (beams, joists, decking, perimeter angle)**

Beams?	□ Yes	□ By Others – Specify Size _____
Joist?	□ Yes	□ By Others – Specify Size _____
Decking?	□ Yes	□ By Others – Specify Size _____
Perimeter Angle?	□ Yes	□ By Others – Specify Size _____

A sketch is required for all mezzanines. It should indicate the location of the mezzanine in the building, the locations of all openings, and all point loads.

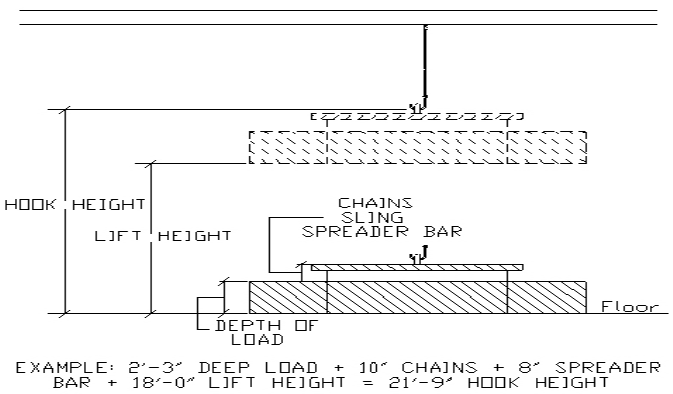
Additional Information Sheet E
Building with Crane

Item	Information	UNIT
Crane type *(example monorail, top running bridge)*		-
Crane classification (*example NCMA class D)*		-
Cab or pendant operated		-
Crane capacity		Tons
Maximum wheel load w/o impact		Pounds
Wheel base		Feet
Bridge weight		Pounds
Hoist and trolley weight		Pounds
Runway rail weight (ASCE type)		#/Yd
Clearance from face of column to C.L. of rail		Inches
C.L. to C.L. of rails		Feet
Top of bracket elevation		Feet
Hook height (see below to determine height)		Feet
Number of cranes on the same runway		-
Distance between cranes if more than one		Feet
*Are runway beams and channel provided by Spirco?		_
*Are brackets provided by Spirco?		_
*Are auxiliary crane columns provided by Spirco?		_
*Is crane bracing provided by Spirco?		_
Location of crane system in building *(sketch)*		_

Provide data from crane manufacturer when available.

*If runway beams, cap channel, brackets, auxiliary crane columns, or crane bracing is not provided by Spirco. Sizes and details of attachment are required to properly design the building.

You can figure the hook height by adding the depth of the load plus the chains, sling, and spreader bar plus how high off the floor you are going to pick it up. See Sketch.



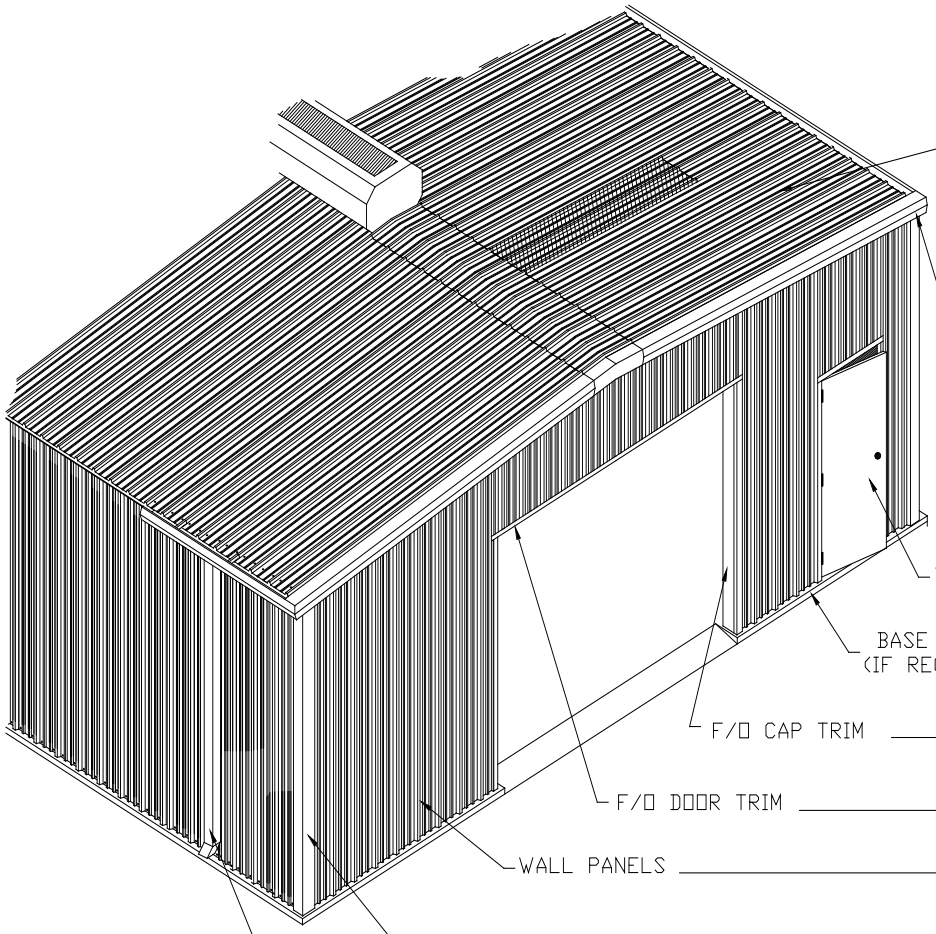
SPIRCO

Additional Information Sheet F

BUILDING COLOR SELECTION SHEET

INSTRUCTIONS: Refer to the color chart to select the desired color scheme. Return a completed photocopy of this sheet as soon as possible so that the proper materials can be reserved for for your project. Send this sheet back with your signed contract or return it to scheduling at number below.

FAX TO: (901)-363-7309
Attn.: Scheduling



ROOF PANELS _____

RAKE & GUTTER /EAVE TRIM _____

WALK DOOR TRIM _____

BASE TRIM (IF REQUIRED) _____

F/O CAP TRIM _____

F/O DOOR TRIM _____

WALL PANELS _____

CORNER TRIM _____

DOWNSPOUTS _____

WALL FAN TRIM _____

SOFFIT PANELS _____

LINER PANELS _____

LINER TRIM _____

NOTE: Color chart approximates actual paint color

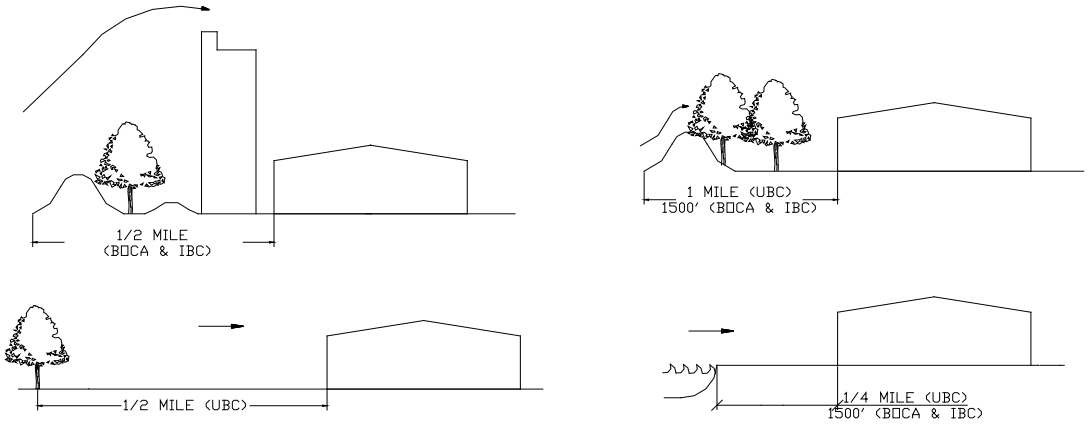
CONTACT: _____ @ ( ) - _____ SPIRCO JOB NUMBER: _____

COMPANY: _____ JOB NAME: _____

APPROVAL BY: _____ SIGNATURE: _____ DATE: _____
(please print)

Figure 1

WIND EXPOSURE



Wind Exposure Definition:

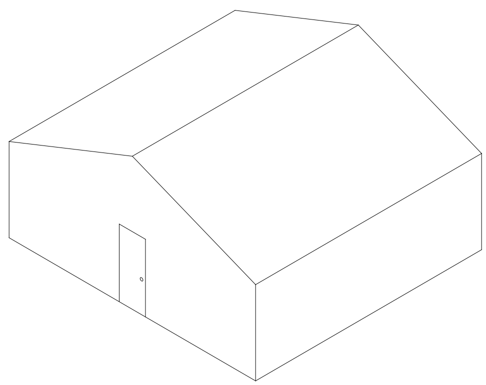
Exposure Category—The characteristics of ground surface irregularities (natural topography and vegetation as well as constructed features) for the site at which the building is to be constructed. The ASCE 7-05 Commentary provides aerial photographs of typical exposures. The definitions are provided in Section 1609.4 of IBC 2006. The following abbreviated definitions are provided, but the user must refer to the IBC 2006 definitions to determine the appropriate category.

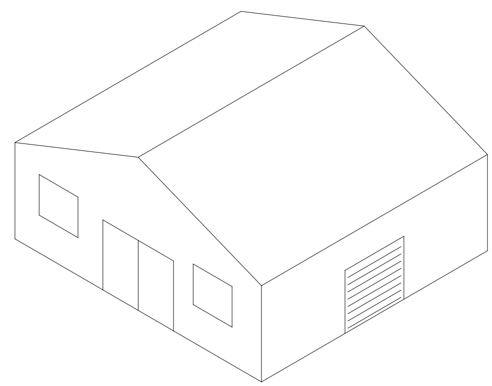
Exposure B—Urban and suburban areas, wooded areas, or other terrain with numerous closely spaced obstructions having the size of single-family dwellings or larger.

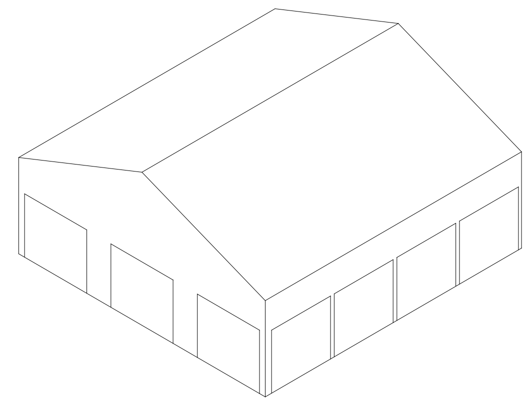
Exposure C—Open terrain with scattered obstructions having heights generally less than 30 feet.

Exposure D—Flat, unobstructed areas and water surfaces outside hurricane-prone regions.

Figure 3
Enclosure Type Guide



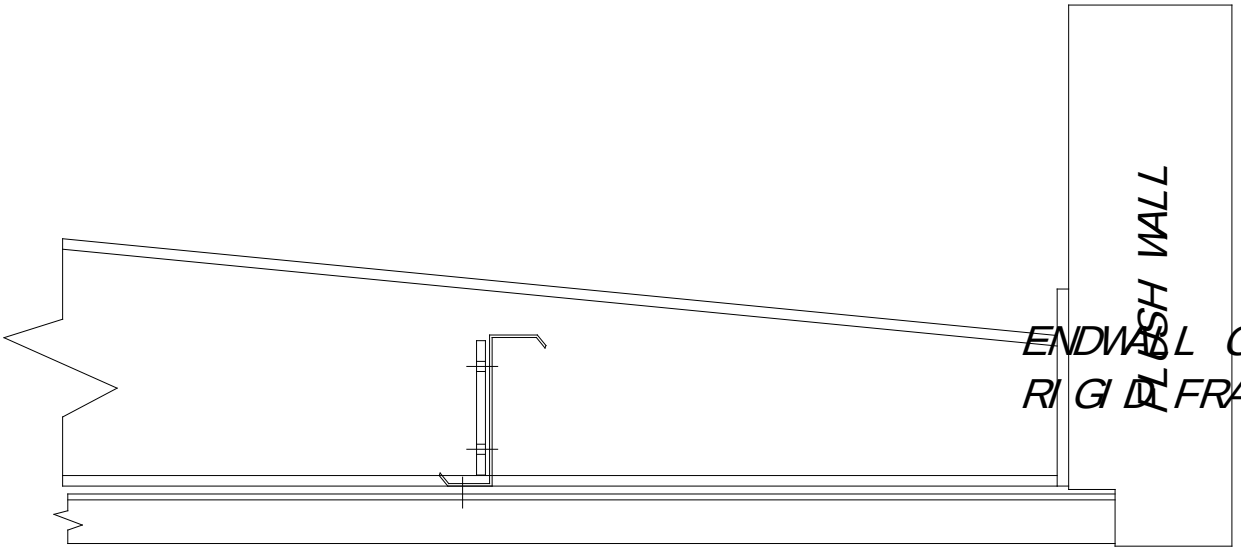




CODE	ENCLOSED	PARTIALLY ENCLOSED	UNENCLOSED (OPEN)
UBC	SHEETED OR WIND RESISTIVE WALL & ROOF. ALL OPENINGS STAY CLOSED & RESIST WIND.	AREA OF OPENING 15%>1 WALL AREA OF OPENING IN REMAINDER 1/2 WALL OPENING	AREA OF OPENING >85% ALL WALLS
BOCA	DOES NOT MEET OPEN OR PARTIALLY ENCLOSED	AREA OF OPENING 4 SQ. FT. OR 1% @1 WALL & OPENINGS IN OTHER WALLS AND ROOF 20% OF AREA	ALL WALLS 80%
SBC	DOES NOT MEET OPEN OR PARTIALLY ENCLOSED	AREA OF OPENING 15%>1 WALL OPENING EXCEEDS SUM OF OPENINGS IN ALL OTHER WALLS, & ROOF; AND OPENINGS IN ALL OTHER WALLS & ROOF 20%<	ALL WALLS 80%>
ASCE7 \IBC	DOES NOT MEET OPEN OR PARTIALLY ENCLOSED	1)THE TOTAL AREA OF OPENINGS IN 1 WALL EXCEEDS THE SUM OF OPEN AREAS IN ALL OTHER WALLS BY MORE THAN 10% AND 2)AREA OF OPENING 4 SQ. FT. OR 1% @1 WALL & OPENINGS IN OTHER WALLS AND ROOF < 20% OF AREA	ALL WALLS 80%>

Figure 4

Girt Condition



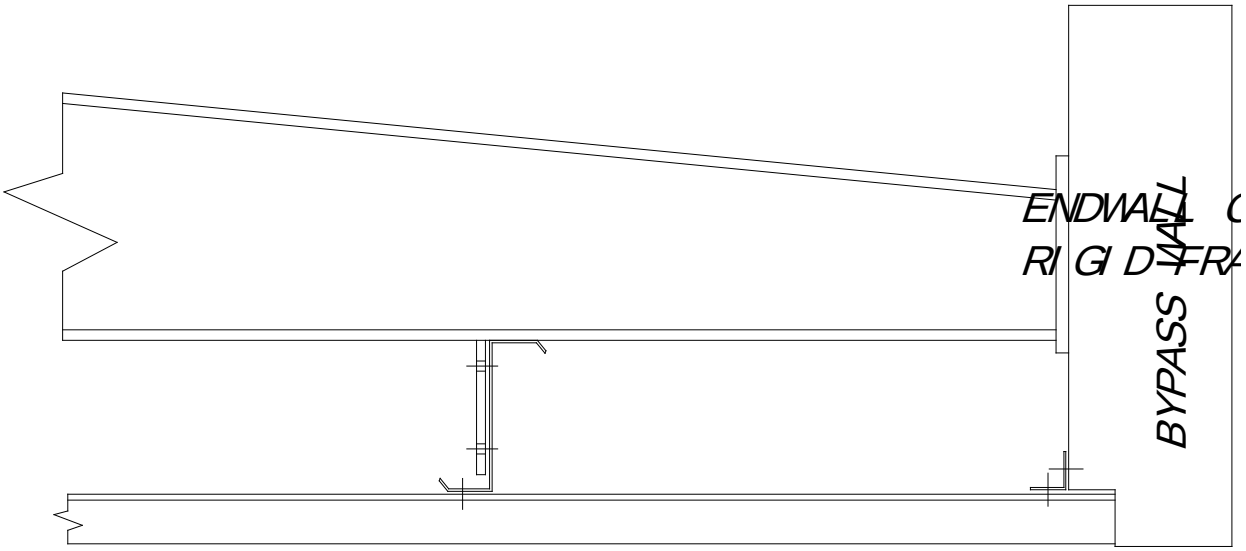


Figure 5
Obstructions

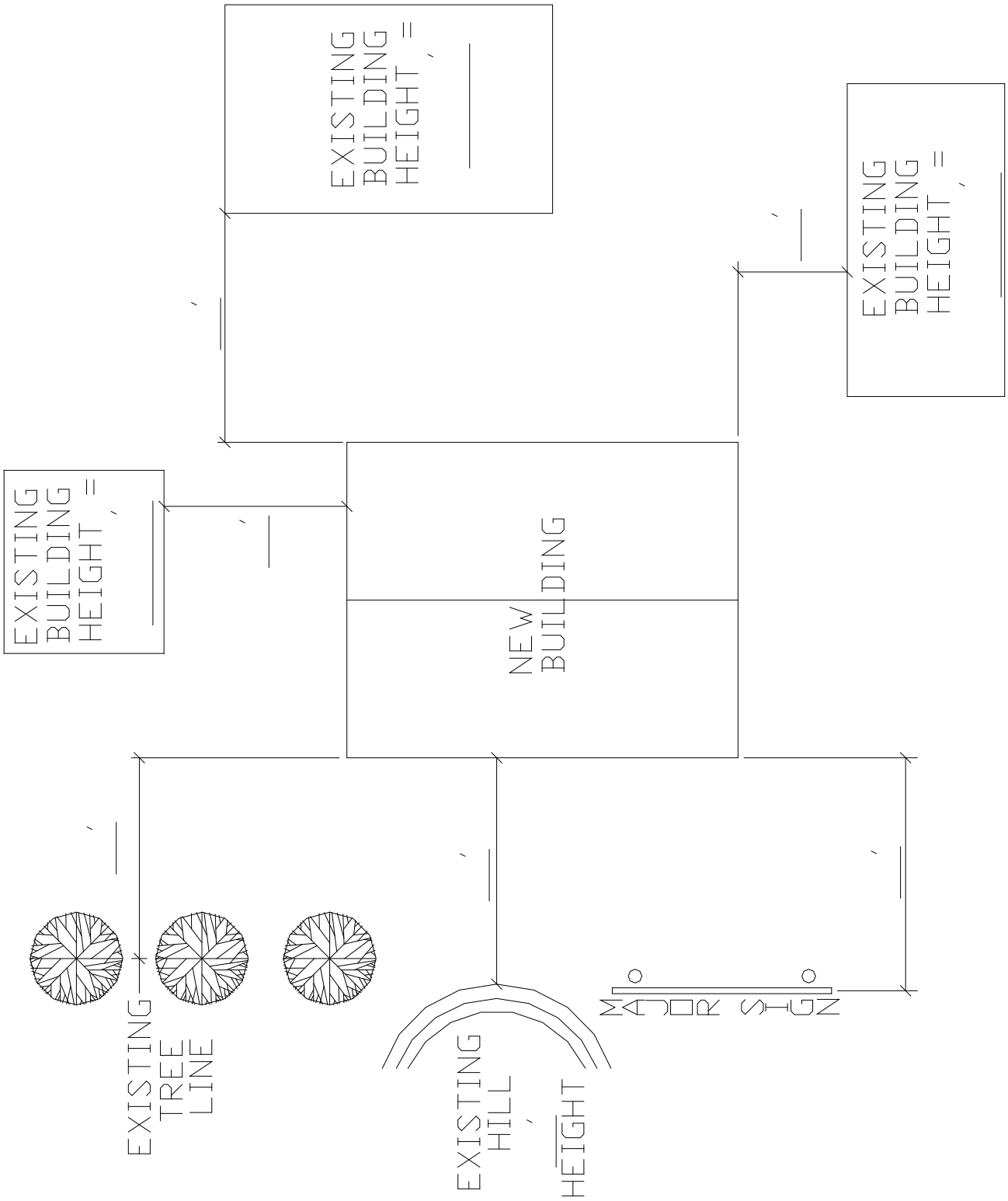
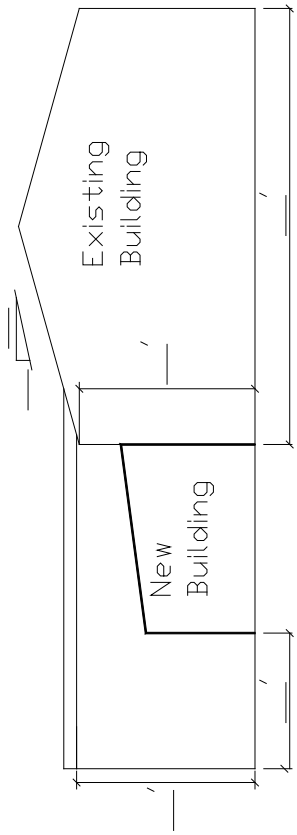
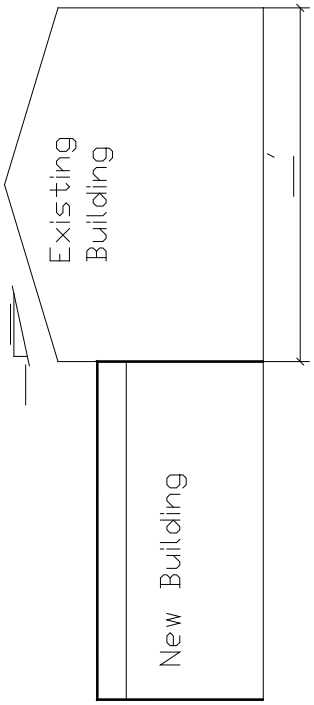
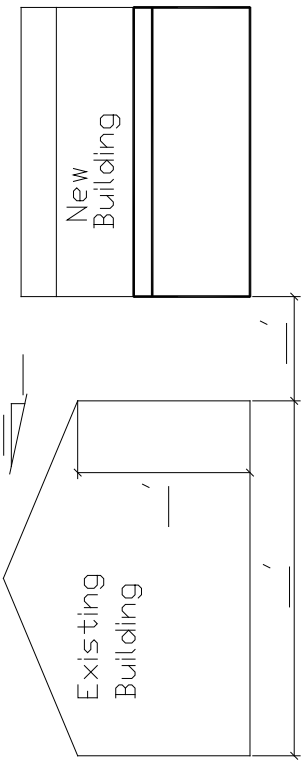


Figure 6
Buildings Near By







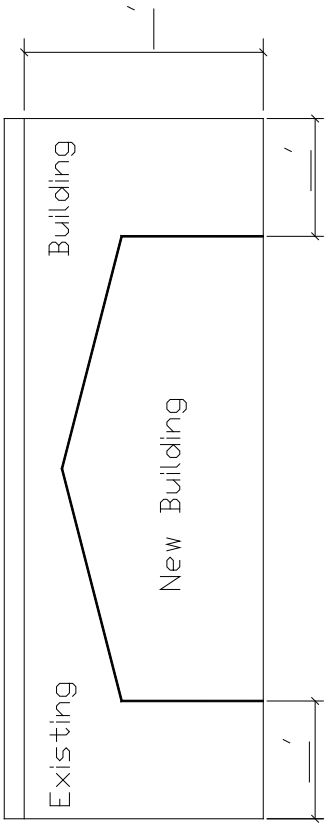
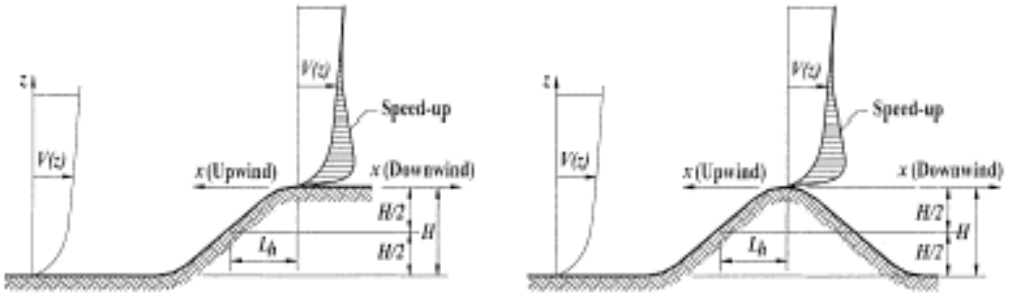


FIGURE 7

HILL OR ESCARPMENT DATA

If your building is located on the upper half of an isolated hill or escarpment, IBC may require your building to have an increased wind load. The term for this on the contract is topography effects. If the location of your building meets all the requirements given below then we must be provided with the information below.

Requirements: 1. The hill or escarpment is 60 feet or higher in exposure B or 30 feet or higher if located in exposure C;
2. The maximum average slope of the hill exceeds 10 percent; and
3. The hill or escarpment is unobstructed upwind by other such topographic features for a distance from the high point of 50 times the height of the hill or one mile, whichever is less.



ESCARPMENT 2-D RIDGE OR 3-D AXISYMMETRICAL HILL

Selected one:

- ❑ Escarpment
- ❑ Hill

Provide Height (H) = _____ft

Provide Distance L_h= _____ft

Provide Distance x = _____ft

Provide Distance z = _____ft

H is the height of the peak of the hill or escarpment. L_h is the distance from the peak to a distance of H/2. x is the distance upwind or downwind from the peak of the hill or escarpment to the building site. z is the height above local ground level.

JOB NUMBER:
QUOTE NUMBER:
SALESMAN:
COORDINATOR:
CUSTOMER NUMBER:

Spirco Manufacturing is a division of Metal Building Products, Inc.
3861 Old Getwell Rd. Memphis, TN 38118

Voice 800-886-6257; Fax 901-363-6795

Standard Building

GENERAL INFORMATION

CUSTOMER INFORMATION

CUSTOMER NAME: 1 _____

CUSTOMER MAILING ADDRESS: _____

_____

CUSTOMER PHYSICAL ADDRESS: _____

_____

CITY: _____ STATE: _____ ZIP: _____

ATTN: _____

PHONE: _____ FAX: _____

JOB INFORMATION

JOB NAME: 2 _____

JOB ADDRESS: _____

CITY: _____ STATE: ___ ZIP: 3 _____

COUNTY: _____ USE: _____

END USER: _____

DRAWING ADDRESS: _____

CITY: _____ STATE: ___ ZIP: _____

FINANCIAL INFORMATION

NET PRICE F.O.B. PLANT....$ _____

FREIGHT.....$ _____

TAX.....$ _____

TOTAL PRICE.....$ _____

DEPOSIT.....$ _____

(Please mail if required)

**********TAX INFORMATION**********

STATE..... _____ %

COUNTY..... _____ %

CITY..... _____ %

OTHER..... _____ %

TAX BASE _____

TAX NUMBER _____

E-MAIL ADDRESS: _____

CUSTOMER Ref: _____

BUILDING LABELING: _____

OCCUPANCY: 4 _____

☐Order Instructions Received
Release 02/23/2004

CONTRACTUAL INFORMATION

This order is subject to corrections in pricing by Spirco and is limited to the information contained on this order form and the building purchase order sketch form. Unless otherwise specifically noted, this order is based on the standard design, materials, and manufacturing methods described in the Spirco general specifications. No other information is to be considered in the design or manufacture of the building. All orders are subject to final approval by Spirco at its office in Memphis, TN.

Subject to credit approval and to the terms and conditions contained in this order, Spirco proposes to furnish the structure described in this order using Spirco standard material. The purchaser hereby accepts full responsibility for the payment of all applicable sales and use taxes due on this order. See terms and conditions on last page, which are a part of this contract. Sales tax note: sales tax will not be charged if we hold a valid Sales Tax Exemption Certificate at the time of order entry. If the sales tax rate has increased at the time of shipment or invoice, the new sales tax rate will apply. The prices, specifications, and conditions are satisfactory and are hereby accepted, subject to the terms set forth above and others attached to heretofore, you are authorized to do the work as specified, as outlined above. This contract not valid unless signed and accepted by an officer of Spirco Manufacturing.

Complete deposits must be received as shown below and prior to the release of any drawings.

SIGN HERE TO RELEASE FOR FABRICATION: _____

PAYMENT TERMS: **Deposit due in 7 business days; Balance COD (cashier's check)**

PURCHASER(COMPANY): _____ FEDERAL ID NUMBER: _____

AUTHORIZED SIGNATURE: _____ TITLE: _____ DATE: _____

PERSON CAPABLE OF LEGALLY BINDING COMPANY

ACCEPTED BY(For Spirco):..... _____ DATE: _____

AUTHORIZED SPIRCO REPRESENTATIVE

INITIAL _____

ORDER REQUIREMENTS

- WE WILL PROVIDE UP TO FOUR(4)SETS OF APPROVAL AND/OR PERMIT DRAWINGS. ADDITIONAL SETS ARE FURNISHED AT $25 PER SET.
- PROJECTS REQUIRING APPROVAL WILL BE SCHEDULED FOR FABRICATION AND DELIVERY AFTER FINAL WRITTEN APPROVAL. NO DESIGN CALCULATIONS ARE FURNISHED UNLESS REQUESTED AT ADDITIONAL COST.
- ALL PERMIT DRAWINGS ARE SEALED AND ALL APPROVAL DRAWINGS ARE UNSEALED UNLESS REQUESTED OTHERWISE.
- DRAWINGS:
- Customer Quantity: Delivery by:
- End User Quantity: Delivery by:

Basic Design Information

Governing Code and Edition: 5

		Loads Supplied By:
Enclosure Type	6	
Wind Load/Speed	7 Importance Factor: 8	
Wind Exposure	9 Topography Effects? If YES provide Figure 7 10	
Live Load	11 **PSF** Reducible? 12	
Snow Load	13 **PSF**	
Snow Exposure	14 Heated? 15	
Snow Importance	16	
Collateral Load	17 **PSF** ☐**Lights**☐**HVAC**☐**Ceiling**☐**Sprinkeler**☐**Other**	
Auxiliary Loads	18 **PSF**	
Crane Loads	19 If YES provide Additional Information Sheet E	
Floor Loads	20 IF YES provide Additional Information Sheet D	
Seismic Factors	21	
Seismic Importance	22	
Soil Class/Profile	23	

Building Description

Width -	Building Type:
Length -	Bay Spacing:
Eave Height –	Column Shape:
Roof slope -	Sidewall Girts: 24
Interior Columns	Endwall Girts:
Recessed? Depth	Structural Coating:
Roof Fasteners:	Wall Fasteners:

	Sheeting	Bracing	Base Condition
Left Endwall LEW			
Right Endwall REW			
Front Sidewall FSW			
Back Sidewall BSW			

Do doors, windows, and exterior materials FURNISHED BY OTHERS provide wind resistance per code?

If wall systems are By Others provide Additional Information Sheets A OR B AND C. 25

Left Endwall Column Spacing : Type:

Right Endwall Column Spacing : Type:

Base Closures: Sheet Ledge: Gutters & Downspouts?

Is there a structural or geographic anomaly within 20 FT? 26 If YES provide FIGURES 5 & 6

Deflection Requirements? 27 *Any materials not in SPIRCO STANDARDS must have deflection requirements furnished on the contract.*

INITIAL _____

Sheeting

	Type	Gage	Finish	UL90 Cert	Written Warranty	Rake Closures
Roof	28					
Wall				**N/A**	**No**	**N/A**

Insulation:

	Type	Thickness
Roof		
Walls		

Standing Seam Roof Information: 29

Clips:

Thermal Blocks Required?

Seamer?

Standard Accessories	Qty	Non-Standard Accessories	Qty

Framed Openings

Factory located openings must be shown on the attached sketch.

Qty	Size	Located		Covers	Qty	Size	Located		Covers

Overhangs and Extensions

All overhangs must be shown on the attached sketch.

Wall	At or Below Eave	Elevation	Soffit				Gutters & Downspouts
			Orient	Panel Type	Gauge	Finish	
		#####					
		#####					
		#####					
		#####					

Facia

All Facia must be shown on the attached sketch.

Wall	Projection	Height	Clear Elevation	Face				Soffit		
				Slope	Panel Type	Gauge	Finish	Panel Type	Gauge	Finish

Additional Information

INITIAL _____

1.All provisions of the presently effective Dealer Buyer Sales Contract by and between the Dealer (Buyer) signing below hereof and Spirco Manufacturing (SM) (Seller) are, by this reference, incorporated in this purchase order as fully as if they were stated herein, and said provisions will become and be a part of the contract of purchase and sale when this order is accepted by Spirco.

2. TAXES AND ADDITIONAL CHARGES: All quotations and sales are subject to increases without notification by;(a)the amount of any sales, excise or other tax leveled or charged by any governmental agency,(b)price adjustment necessitated by Seller's compliance with any governmental requirement, (c)the cost of any bonds required and/or (d) any price increases or surcharges levied by material suppliers or vendors after the execution of this contract. All sums accruing under (a),(b),(c) and (d) above will be added to the contract price and shall be paid by Buyer. Payment for additional work not included in the proposal but required by the Buyer shall be promptly made on the same basis as original sale.

3. DELIVERY: Buyer assumes full responsibility for furnishing Seller adequate roadways to the construction site. Seller will attempt to ship all orders on date requested, but cannot guarantee a specific delivery date. However, Buyer will be notified of the shipment date 1 week in advance unless otherwise agreed. **Upon delivery, it is Buyer's responsibility to unload the building within two hours. After two hours, charges will be paid by Buyer upon receipt of invoice from Seller.**

4. BUYER RESPONSIBILITY FOR ERECTION: It is Buyer's responsibility to select competent personnel to erect the structure for which Seller furnishes the materials and erection drawings. Buyer will indemnify and hold Seller harmless from and against any claims asserted against Seller on account of injuries to persons or property arising from faulty erection work.

5. CANCELLATION OR DELAY BY BUYER: It is understood Seller is a custom fabricator and that if Buyer cancels an order which has been accepted by Seller, Buyer shall pay for all work done and all materials purchased to fill Buyer's order and will also pay Seller's overhead and anticipated profit on said work or 15% of the canceled order amount, whichever is greater. In the event Buyer causes delay in completion and/or delivery of Seller's work, Buyer shall pay all additional costs resulting from the delay, including, but not limited to, cost for repairs, charges for storage on Seller's property or elsewhere, as determined by Seller. In the event Buyer causes delay, Buyer will immediately pay Seller's billing on account for work to date, plus overhead and profit thereon.

6. SECURITY INTEREST RETAINED BY SELLER: Buyer hereby grants to Seller a security interest in all materials delivered to Buyer under this contract and all such materials shall remain personal property of the Seller until all sums due Seller are paid, in full, by Buyer. Buyer agrees to execute financing statements and such other documents as Seller may reasonably require to protect its security interest. By accepting said security interest, Seller does not waive its mechanic or materialmen's liens, which are hereby expressly retained.

7. CERTAIN RIGHTS OF SELLER: If Buyer fails to fulfill the terms of payment, or if Seller has reason to believe Buyer will not make certain payments when due, Seller may, in addition to other rights as it may have, withhold further shipments until properly assured as to Buyer's ability to perform. No failure of Seller to exercise any right arising from any default of Buyer shall constitute a waiver of or impair Seller's rights in case of any subsequent default of Buyer.

8. GENERAL CONDITIONS: Seller's standard terms of payment are 20% down payment with order, the balance to be paid by cashier's check upon delivery. Seller will not be held responsible for collecting funds in excess of the contract amount. Additional funds determined by the buyer may be collected by seller at delivery as a courtesy to buyer. Buyer remains responsible for payment of the full contract amount regardless of the amount collected at delivery. Any deviation from these terms shall be subject to approval of Seller's Credit Department. Credit terms, if granted, are to be determined by the Credit Department after completion of the necessary documentation and a credit check.

Deductions for retentions are not allowed. Deductions for sales tax shall only be permitted when Buyer has presented documentation as required by the individual States and/or local taxing jurisdictions. Any payments deferred after the due date as specified herein shall bear interest at the rate of eighteen percent (18%) per annum. If an invoice is placed in the hands of an attorney for collection, or if collected by any legal proceedings, Buyer agrees to pay Spirco its reasonable attorney fees and costs incurred in the collection of sums owed by Buyer to Spirco on account of principal, interest, or other charges.

9. LEGAL DESCRIPTIONS: Seller is fully authorized at anytime to fill in and insert the legal description of the real estate upon which the materials being furnished by Seller per this contract are to be located.

10. MATERIAL TO BE FURNISHED: This contract covers only items specifically set out in the building purchase order. In the event of conflict between drawings and the building purchase order, only material listed in the building purchase order will be furnished. All materials furnished are to be governed by Spirco specifications only, and any variance or deviation must be so stated on the building purchase order. All other material furnished will be at extra charge.

11. MBMA MANUAL: The Metal Building Manufacturer's Association "LOW RISE BUILDING SYSTEMS MANUAL," current edition, is part of this contract as though fully set forth herein. By execution of this Contract, Buyer acknowledges receipt of this code and complete familiarity with the contents thereof.

12. SHORTAGES, DAMAGES, AND BACK CHARGES: If, in the opinion of the Buyer, any material is damaged prior to receipt by Buyer to a degree that will prevent use of such material with minor field repair, delivery of damaged material shall be refused by Buyer, noted by item on shipping documents as "damaged'" and returned on delivering truck to Seller or to common carrier. Under no circumstances shall damaged material which cannot be used with minor field repair be unloaded at jobsite. Seller shall not be liable for the correction of errors in design, detailing, manufacturing or shipping if Buyer does not strictly comply with the provisions MBMA "LOW RISE BUILDING SYSTEMS MANUAL," governing the correction of errors and repairs, and material count, Seller shall not in any event be liable for labor charges or consequential damages arising from the use of defective materials. It is further agreed that no back charges or offsets of any kind will be accepted by Seller unless agreed to in writing. Seller's only liability for shortages will be furnishing of said shortages. All shortage and/or claims must be reported no more than 7 days after delivery. **No back charges will be accepted for delays, equipment costs, or corrective actions unless agreed to, in writing, in advance of charges being incurred. Buyer must provide receipts and documentation to validate all work was performed, and/or materials were purchased.**

13. WARRANTY: Seller makes no warranties of any nature whatsoever except that Seller's materials and/or work are warranted in accordance with warranties that are a part of this contract and are requested by Buyer at the time of the order. All other warranties of any nature whatsoever including but not limited to warranties of merchantability and fitness to purpose, express or implied, by operation of law or otherwise are excluded from this contract. Seller's liability is limited as set forth on the warranties, if any, mentioned on the face of this contract and Seller shall not be liable for any other damages whether direct or consequential, incidental, exemplary, liquidated, or punitive including loss of use which may be suffered by Buyer. Seller shall comply with specifications governing material workmanship, design procedure and design loads which are expressly provided in the building purchase order. Materials or workmanship sold hereunder for which specifications are not expressly provided in the building purchase order shall be subject to Seller's standard variances, tolerances, and specifications current as of the building purchase order date. Any alterations to building system will void all warranties and we will assume no liability for altered building systems.

14. CODE COMPLIANCE: Buyer agrees that it will be his responsibility to see that any building ordered from Seller meets local codes or regulations. Seller guarantees only that the buildings will meet specific loadings from models outlined in the building purchase order. Seller reserves the right to change design or make structural substitutions which do not materially affect the strength of the buildings covered under the building purchase order.

15. SEPARATE SHIPMENTS: Seller reserves the right to divide this contract into separate shipments and invoice such shipments separately, in which case each shipment shall be deemed a separate contract and payment thereof due in accordance with the terms hereof. Seller will not be responsible for spotting, switching, drayage, demurrage, or other transportation unless agreed to in writing on the reverse hereof. If because of default of Buyer, any shipment must be delivered or returned to Seller, Buyer shall pay all demurrage, transportation and other costs incurred as a result thereof.

16. PICTURE RELEASE: In signing this contract, Buyer gives Seller permission to use any visual representations of the above specified project in any way Seller wishes.

17. **IT SHALL BE THE FULL RESPONSIBILITY OF BUYER TO CAREFULLY CHECK ORDER ACKNOWLEDGMENTS IMMEDIATELY UPON RECEIPT AND TO NOTIFY SELLER OF ANY DISCREPANCY.**

18. Spirco Manufacturing shall not be held responsible for any delays or cancellations due to strikes; riots; acts of God; shortages of materials or labor; war; governmental laws, regulations, or restrictions; financing; or any cause whatsoever beyond their control.

19. Spirco Manufacturing is a division of Metal Building Products, Inc (a Tennessee Corporation) . Any matters requiring adjudication shall be heard in the appropriate division of Tennessee Courts in Memphis, Tennessee. Buyer consents to the jurisdiction and venue of the courts of Shelby County, TN and Buyer agrees that all actions will be brought in that forum.

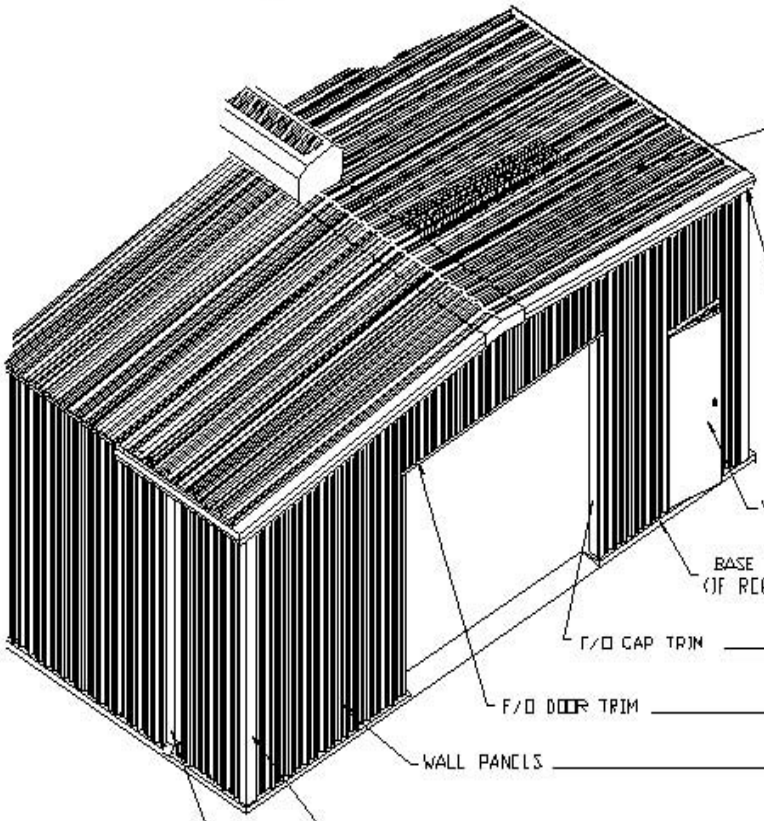
20. ENTIRE AGREEMENT: This writing is intended by the parties as a final expression of their agreement, and it is intended also as a complete and exclusive statement of the terms of their agreement. It is specifically understood and agreed that Seller shall have no

liability whatsoever under any contract between Buyer and other parties, unless Seller agrees thereto, in writing, at the time of acceptance of the approval.

BUILDING COLOR SELECTION SHEET

INSTRUCTIONS: Refer to the color chart to select the desired color scheme. Return a completed photocopy of this sheet as soon as possible so that the proper materials can be reserved for for your project. Send this sheet back with your signed contract or return it to scheduling at number below.

FAX TO (901) 363-6795
Attn.: Sales Dept.



ROOF PANELS _____

RAKE & GUTTER /EAVE TRIM _____

WALK DOOR TRIM _____

BASE TRIM (IF REQUIRED) _____

F/O CAP TRIM _____

F/O DOOR TRIM _____

WALL PANELS _____

CORNER TRIM _____

WALL FAN TRIM _____

DOWNSPOUTS _____

SOFFIT PANELS _____

LINER PANELS _____

LINER TRIM _____

NOTE: Color chart approximates actual paint color

CONTACT: _____ @ ( ) - _____ SPIRCO JOB NUMBER: _____

COMPANY: _____ JOB NAME: _____

APPROVAL BY: _____ SIGNATURE: _____ DATE: _____
(please print)

INITIAL _____

Explanation of Contract

Note: To help avoid input errors start with a blank contract each time.

Heading, Front Page: (Completed by SPIRCO)

Job Number: A job number will be assigned to your contract upon signing and entering the contract into our system.

Quote Number: This is the number assigned to your project by our Estimating Department when the project was estimated.

Salesperson: This District Manager handles your account.

Coordinator: This Sales Coordinator handles your account.

General Information (Completed by the Buyer)

Customer Name: This is the Company Name of the buyer of this building project.

Customer Mailing Address: This is the mailing address of the buyer. Required for all drawings and other materials mailed to the buyer from SPIRCO.

Customer Physical Address: This is the physical address of the buyer. This is also required and is used for any materials sent overnight to the buyer by SPIRCO.

City: The buyer is located in this city.

State: The buyer is located in this state.

Zip: The buyer is located in this zip code.

Attn: This is the contact person who is responsible for handling the project. All items mailed or sent from SPIRCO will be to this person's attention.

Phone: Phone number including area code of the buyer.

Fax: Fax number including area code of the buyer.

Shipping Information (Completed by the buyer)

Job Name: This is the name of the project usually designated by the end user.

Job Address: This is the physical address of where the building project will ship.

City: This is the city of the building project ship-to location.

State: This is the state of the building project ship-to location.

Zip: This is the zip code of the building project ship-to location.

County: This is the county of the building project ship-to location.

Use: This is the exact category describing the building use of this project.

End User: This is the name of the end user, who will own the building.

Drawing Address: This is the address of the end user. This is also required and is used for any materials mailed or sent overnight to the end user by SPIRCO.

City: The end user is located in this city.

State: The end user is located in this state.

Zip: The end user is located in this zip code.

Financial Information: (Completed by SPIRCO)

Net Price F.O.B. Plant: This is the price of the building project less freight and taxes.

Freight: This is the cost of shipping your project to the ship-to location. This is often shown as "included" if SPIRCO will be shipping the project.

Tax: This is the total amount of taxes charged to this project. Just below this area, you will see a heading of "Tax Information". This will show you a breakdown of the taxes. When a customer is tax exempt, this will show "exempt". If the customer is not exempt and SPIRCO does not collect the required taxes, "by others" will be shown.

Total Price: This is the total price of the project, including taxes and freight.

Deposit: This is the amount of the deposit you will need to mail to SPIRCO. The amount of the deposit depends on the payment terms the buyer has been approved. It is important to mail in your deposit as soon as possible, because your project will not go to fabrication until the deposit has been received.

Tax Information: This is the breakdown of all applicable taxes required on the building project. There is a location for all tax-exempt customers to write in their tax number. A copy of your tax exemption is required to be mailed in as soon as possible.

E-Mail Address: The buyer's address where any needed e-mail communications should be sent.

Building Labeling: Specify if this building will show SPIRCO logos or Private Label logos.

Occupancy: Specify what occupancy category this building is.

Order Instruction Received: Check this box if you have our latest order instructions if not call your salesperson and they will get you a copy.

Contractual Information

Release for Fab: Sign here to release your building for fabrication. Without this signature, your project will be unable to be released to production.

Payment Terms: These are the payment terms assigned to the buyer. Other terms are available and can be granted upon receipt of our Credit Application and Personal Guarantee. Standard payment terms are 20% down payment, and the balance COD (Cashiers Check).

Purchaser: This is the company name of the buyer purchasing the project. The name should be the same as the "Customer Name" located under the "General Information" heading.

Federal ID Number: If the company purchasing the project has been assigned a Federal ID Number, please write the number in this location.

Authorized Signature: This is the signature of the person who is an authorized agent of the buyer to purchase this project from the seller.

Title: This is the title of the authorized purchaser.

Date: Specify the date on which you signed this contract.

Accepted by: This is the signature accepting the contract by an approved representative of SPIRCO.

Date: This is the date of the contract's acceptance by SPIRCO.

Order Requirements:

This is where we communicate what type of drawings SPIRCO will provide for the project. However, other options are available. For each set of sealed permit drawings one sealed Letter of Certification will be provided. See "Explanation of Drawing Requirements" for more information.

Drawings: Please specify the type of drawings you require and specify whether you need the engineer to seal the drawings.

Customer Quantity: Specify the quantity of drawing sets the customer is to receive.

End User Quantity: Specify the quantity of drawing sets the end user is to receive.

Basic Design Information: (Refer to the Order Instructions for clarifications)

*** References below to "local code" are to the governing code at the ship-to location.**

Governing Code And Edition: This is the local building code and edition specified by the code authorities where the building will be located.

Enclosure Type: Specify if the building is enclosed, open, or partially enclosed as defined on figure 3.

Wind Load/Speed: Specify wind load/speed (psf or mph) according to local code.

Importance Factor: This is a factor applied to the wind load according to the building use.

Wind Exposure: Specify wind exposure according to local code. For SBC this is not applicable, but all other national codes should have the wind exposure specified as defined on figure 2.

Topography Effects: If the building is on a hill as described on figure 7 we need this information.

Live Load: Specify the live load and note if a reduction is allowed to the frames or if there is no load reduction allowed.

Snow Load: Specify the snow according to local code and indicate if it is ground snow or roof snow.

Snow Exposure: Specify the snow exposure according to local code. The options are fully exposed, partially exposed or sheltered. Tell us if the building is heated. See section 14 of these instructions for a further explanation.

Snow Importance Factor: Specify the importance factor according to local code.

Collateral Loads: Specify the collateral loads needed to support any added items, which will be attaching in any way to the roof.

Auxiliary Loads: Specify any auxiliary load needed to support any items supported by the project.

Crane Loads: Specify all applicable crane loads and give description of the type of crane. The location will be shown on the building sketch. It is advised that the crane loads come from the manufacturer of the crane. Provide Additional Information Sheet E.

Floor Loads: Specify any floor loads, which will be attaching to the building project in any way. Location and description will also be required. Provide Additional Information Sheet D.

Seismic Factors: Specify these seismic factors according to the code. For SBC and BOCA provide Aa and Av. For UBC provide seismic zone. For IBC provide Ss and S1.

Seismic Importance: This is a factor applied to the seismic load according to the building use.
Soil Class/Profile: This is the building site's soil type or conditions. This is used to determine the seismic loads on the building. See section 17 of these instructions for further explaination.

Building Description:

Width: Specify the nominal width of the building.
Length: Specify the nominal length of the building.
Eave Height: Specify the height from finished floor to the top of the eave strut. (Sidewall)
Roof Slope: Specify the roof slope of the building.
Interior Columns: Specify how many interior columns are desired on each mainframe line and the type desired. Spirco's standard interior column is pipe.
Recessed: Specify if the interior columns are to be recessed below the finished floor and how far.
Roof Fasteners: Specify what type of roof fasteners are to be used.
Building Type: Specify the type of building: Gable, Single-Slope, Lean-To, or other
Bay Spacing: Specify if the sidewall bay spacing is "uniform" (equal) or "non-uniform". Show the sidewall spacing on the building sketch.
Columns: Specify "straight" or "tapered allowed" sidewall mainframe column shapes
Sidewall Girts: Specify if the sidewall girts are flush or bypass.
Endwall Girts: Specify if the endwall girts are flush or bypass.
Structural Coating: Specify the type and or color of the structural coating
Wall Fasteners: Specify what type of wall fasteners are to be used.
Sheeting: Specify if the specific wall is solid sheeted, open, or partially sheeted at each wall location shown.
Bracing: Specify "X-Bracing Allowed" or "Alternative Bracing". You may not be allowed to x-brace, and may note other bracing options. Specify the bracing at each wall location shown.
Base Condition: Specify the base condition on each wall location shown. This includes base angle, base girts, formed base trim, etc.
Left Endwall Column Spacing: Standard or See Sketch. Standard means the engineer will space the columns to provide the best design. See Sketch means the customer is specifying the column spacing on the building sketch. From left to right, facing the endwall, specify the column spacing.
Type: Specify the type (post and beam, rigid frame, or no frame) of the left endwall. Ask your salesperson for explanation of type's if not known.
Right Endwall Column Spacing: Standard or See Sketch. Standard means the engineer will space the columns to provide the best design. See Sketch means the customer is specifying the column spacing on the building sketch. From left to right, facing the endwall, specify the column spacing.
Type: Specify the type (post and beam, rigid frame, or no frame) of the right endwall. Ask your salesperson for explanation of type's if not known.
Base Closures: Specify "Yes" or "No" for base closures. If the building is not insulated, base closures are sent as a standard feature.
Sheet Ledge: Specify "Standard" for Spirco's standard sheet ledge of 2" x 1 ½" or specify what type of sheet ledge is required.
Is there a structure or geographic anomaly within 20 ft? Please specify either "Yes" or "No". If yes, additional information on the existing structure may be required and you will need to show the location on the building sketch. Provide figures 5 and 6.
Deflection Requirements? Specify any non-standard deflection limitations at this location. If the deflection limitations are standard, please note as "Standard". Please review standards in section 10, tables 3.1, 3.2, 3.3, and 3.4. Material not listed require deflections limits on the contract.
Gutters & Downspouts? Specify "Yes" or "No"

Sheeting

Roof Type: Specify the type of roof such as "PBR", "SSR", or "Other". If the type is, "SSR" see Standing Seam Roof Information. If it is "Other", provide the additional information in the appropriate section.

Wall Type: Specify the type of wall panel such as "PBR", "Reverse PBR", or "Other". If it is "Other", provide the additional information in the appropriate section. If wall systems are by others provide Additional Information Sheets A or B and C.

Gauge: Specify the gauge of the roof panels and the wall panels.

Finish: Specify "galvalume" "standard color", etc. for the roof and wall panels.

UL90 Cert. Specify either "Yes" or "No" for the roof panels.

Written Warranty: Specify either "Yes" or "No" for the roof and wall panels.

Rake Trim Closures: Specify "Yes" or "No" for the roof panels. This does not apply to the wall panels and is shown as "N/A".

Insulation: Specify "By SPIRCO" if the building is insulated and SPIRCO is providing the insulation, "By Others" if the building is insulated and the insulation is provided by others, or "N/A" if the building is not insulated.

Roof and Walls:

Type: Specify the type of insulation for the roof and walls.

Thickness: Specify the thickness of the insulation in the roof and walls.

Standing Seam Roof Information: Specify the name of the standing seam.

Clips: Specify the type of standing seam clips or per manufacturer.

Thermal Blocks Required? Note as "N/A", "Per Manufacturer", or "No".

Seamer: Specify "No" or see "Additional Information".

Standard Accessories: Specify the size, color, and quantity of all standard accessories to be included with building.

Non-Standard Accessories: Specify the size, color, and quantity of all non-standard accessories to be included with building.

Framed Openings: Specify the size, location, and quantity of all framed openings included with building. Also, specify if head and jamb covers are to be included. The wall and bay must be specified here if any of the doors are field located. All factory located doors must be shown on the sketch.

Do doors and windows furnished by others provide wind resistance per code?: Answer this question so we can properly design your building. See section 12 of these instructions for further explanation.

Additional Information

Please write in any items or information, which is a part of the building structure, important additional design information, special non-structural accessories, or structural accessories.

Building Sketch

A sketch is required for each building on each contract. The sketch should show a top view with bay spacing, each wall elevation, all framed opening locations, and any other information needed to properly design the building.

Terms and Conditions

Each contract includes the standard terms and conditions of the contract document. It is very important that each buyer reads and fully understands the terms and conditions. The information is very specific and could head off any future misunderstandings.

Thank you for choosing our company to service your building needs. We understand there are many other companies you could have chosen. If you need further assistance with our contract documents, please contact your sales representative.

Explanation of drawing requirements on contract:

* Three copies of the anchor bolt plan and erection drawings are sent with the building delivery with every order.
* One letter of certification is sent with every order as an added benefit to the customer. Additional copies can be requested under the "Order Requirements" page of the contract and may require an additional charge.

Additional Options:

Erection Drawings: Three copies of the erection drawings are sent with every building. When erection drawings with an Engineer's seal are requested, they are processed when the building is sent from drafting to production. Sealed erection drawings will be sent by mail around the time the building is scheduled for delivery.

Permit Drawings: Anchor bolt plans and permit drawings are generated and usually sealed by the Engineer unless specified otherwise on the contract. One copy of the letter of certification is provided with each copy of permit drawings. On a standard building permit drawings usually take 2 to 3 weeks to receive after all information is received. For complex buildings it will take longer. The "Release for Fabrication" must be signed for the building to be scheduled for fabrication. With the release signed and the building is scheduled you will receive a letter in the mail stating the week the job is scheduled for delivery. If the release is not signed, the job will be placed on "Permit Hold" and you will receive a letter stating that the job is on hold. When the job is on "Permit Hold", there will not be any more work beyond permit drawings performed on the job until notice is sent to us in writing to release the job for fabrication. At this point the building will be scheduled for fabrication.

Approval Drawings: Approval drawings will be provided, only if they are requested on the contract. An Engineer's seal is available on the approval drawings if requested on the contract. On a standard building approval drawings usually take 2 to 3 weeks to receive after information is received. For complex buildings it will take longer. You cannot sign the release for fabrication on jobs requiring approval. Approval drawings must be signed on and returned to us with authorization to start fabrication as stated on the plans.

Design Calculations: Formal calculations will be provided at additional cost if requested. Make sure that your salesperson is aware of this requirement so they can price the project properly. If the calculations are not quoted, you cannot add them to the contract without a change order for the additional charges.

Hold Definitions

ANY JOBS PLACED ON HOLD SHALL BE REMOVED FROM THE SCHEDULE IMMEDIATELY.

Spirco uses six different hold categories in order to better control unnecessary costs to both the customer and Spirco. These holds are defined below. The customer typically uses the first four types listed in order so they may get their part of the construction process ready to receive the building. The manufacturer typically uses the last two holds to stop work when there are questions about the project or the contract requirements are not met.

APPROVAL HOLD "A"

- The customer must return signed final approval drawings to the drafting manager before the job will be scheduled.
- Any changes to the approval drawings will be forwarded to sales and a change order will be required.
- The drafting manager will inform the scheduling manager to schedule the job.
- Spirco will begin detailing the job when it is placed in the schedule.

CUSTOMER HOLD "C"

- The customer wants the entire project stopped.
- Spirco will schedule the job, after it is removed from customer hold in writing. Spirco will begin detailing the job when it is placed in the schedule

PERMIT HOLD "PE"

- The customer does not have permits.
- The customer must request permit hold no later than 4 weeks prior to delivery.
- Permit drawings will be sent and then all work will stop.
- Spirco will schedule the job, after removal from permit hold in writing. Spirco will begin detailing the job when it is placed in the schedule

PRODUCTION / FABRICATION HOLD "PR"

- The customer does not want the building fabricated.
- Spirco will continue detailing until the job is ready for fabrication. Spirco will schedule the job, after it is removed from production hold in writing.

DEPOSIT HOLD "D"

- If a deposit is required on the contract and has not been paid three weeks before delivery, the job is automatically placed on deposit hold.
- The scheduling manager will call the customer, fax a letter to the customer, and then mail a letter to the customer stating that the deposit has not been received and the job has been removed from the schedule.
- This job will not be rescheduled until the deposit check is in Spirco's possession.

ENGINEERING HOLD "E"

- The Engineering department may put a job on hold when questions have gone unanswered or there are potential problems with the contract and the design application. Delays due to unanswered questions from the Engineering Department can cause problems with the schedule of the job in question and other jobs. Therefore, answers to questions by design must be returned within 48 hours and answers to questions by drafting must be returned within 24 hours to avoid engineering hold. The Engineering department will inform the scheduling manager to reschedule the job when all questions have been answered.

Any job on hold for more than 90 days is subject to re-pricing at the manufacturer's discretion. A job is officially on hold when the phone call informing the customer and a letter to the customer from scheduling has been faxed and mailed. No job placed on hold by the customer will be removed from hold without written authorization from the customer.

IX. Wind, Snow, Seismic and Rain Data by U.S. County

9.1 Introduction

In this section, climatological data are tabulated by U.S. County. The methods used to determine each of the values are given below. Using a single point to represent an entire county may produce substantial errors for counties with large areas or closely spaced load contours. For example, in Alaska the large political divisions are not conducive to assigning a single value. The values given should only be used as a relative guide. The maps should be referred to for the appropriate design parameters. Loads should be used with caution since local conditions may be more severe than indicated here. Check with the authority having jurisdiction for local requirements because they may supersede the values shown here.

Seismic spectral response values were obtained from the Earthquake Ground Motion Parameter Java Application provided by the U.S. Geological Survey Earthquake Hazards Program. The application can be downloaded from the USGS website: http://earthquake.usgs.gov/research/hazmaps/design. Values were taken at the county seat location, rather than the geographic center of the county. For areas of high seismic activity, taking the value at the county seat and assigning it to the entire county may be significantly unconservative for ground motion values. The recommended approach, in areas of high seismicity, is to use the USGS Java application to input the actual latitude and longitude of the project site. This method yields the most accurate spectral response values. The latitude and longitude can be readily obtained from the site street address from a source such as http://terraserver.microsoft.com.

Ground snow loads are based on ASCE 7-05 Figure 7-1 (Table 7-1 for Alaska) and are also reproduced in IBC 2006 as Figure 1608.2 (Table 1608.2 for Alaska). Wind velocities are based on ASCE 7-05 Figure 6-1 that is also reproduced in IBC 2006 as Figure 1609. Note that counties with all or part of their boundary in a "Special Wind Region" are marked with an asterisk after the basic wind speed. Special consideration should be given to these regions where records or experience indicates that wind speeds are higher than those reflected in the ASCE or IBC figure or the county listing.

For wind velocity, values were determined by linear interpolation between the two contours on either side of a county using the approximate geographic center of the county. Ground snow load was not interpolated, that is, the value of the snow load at the point chosen for geographic center of the county was used. Counties that have areas within the IBC designated wind borne debris regions are noted with the basic wind speed in bold type. These counties may include hurricane-prone regions which are within one mile of the coastal mean high water line and where the basic wind speed is 110 mph or greater; or where the basic wind speed is 120 mph or greater; or Hawaii. Because these areas generally have closely spaced contours along the coastline, the design wind speeds should be carefully evaluated based on where the actual building is located on the ASCE or IBC figures.

Rainfall intensities were determined somewhat differently. The contour maps found in the Weather Bureau Technical Paper No. 40 (and updated information later published in NOAA HYDRO-35), for thirty-minute duration storms with return periods of five and twenty-five years was used. The values of the contours were adjusted to reflect 5-minute duration by using the factor found in the papers. Counties were primarily assigned whole number values based on their proximity to the contour lines in the NOAA maps. Use of the MBMA rainfall values is voluntary. The shorter recurrence intervals and storm durations herein are more conservative than those required in the 2006 International Building Code and International Plumbing Code. For areas in the "Semiarid Southwest", and Ohio River Valley and surrounding states, NOAA Atlas 14 contains up-to-date information. NOAA Atlas 14 is available online at: http://hdsc.nws.noaa.gov/hdsc/pfds/index.html

LEGEND

S : Ground snow load for 50-yr. mean recurrence interval in pounds per square foot (psf).

( ) Numbers in parentheses represent the upper elevation limit in feet for the ground snow load value given. Refer to ASCE 7-05 Figure 7-1 or IBC 2006 Figure 1608.2 for other ground snow loads that may be available for higher elevations.

CS Indicates site-specific case study is required.

W : 3-second gust wind speed for 50-yr. mean recurrence interval in miles per hour (mph).

* Indicates part of the county is in a "Special Wind Region" and may require special consideration or local knowledge of actual wind speeds.

Basic wind speeds in **bold type** indicate that the county may have areas that are designated as wind borne debris regions.

S_s: 0.2 Second spectral response acceleration (5% critical damping). 2% probability of exceedance in 50 years.

S_1: 1.0 Second spectral response acceleration (5% critical damping). 2% probability of exceedance in 50 years.

T_L: Long-period transition period. Counties that share more than one value have all values within the county listed. In these counties it is strongly suggested that the maps found in ASCE 7-05 be referenced to obtain the correct value for the project location.

I1 : Rainfall Intensity (inches per hour).
5-minute duration
5-year recurrence
— Indicates rainfall intensity is undefined.

I2 : Rainfall Intensity (inches per hour).
5-minute duration
25-year recurrence
— Indicates rainfall intensity is undefined.

S	W	S_s	S_1	I1	I2	T_L	County Name
							ALABAMA
5	96	0.163	0.071	8	11	12	Autauga
0	**130**	0.125	0.055	10	12	12	Baldwin
5	98	0.125	0.061	8	11	12	Barbour
5	92	0.223	0.083	8	11	12	Bibb
10	90	0.305	0.100	7	10	12	Blount
5	98	0.136	0.065	8	11	12	Bullock
5	104	0.133	0.063	9	11	12	Butler
5	90	0.275	0.091	8	10	12	Calhoun
5	92	0.179	0.075	8	11	12	Chambers
5	90	0.340	0.101	7	10	12	Cherokee
5	93	0.201	0.078	8	11	12	Chilton
5	103	0.180	0.074	9	11	12	Choctaw
5	105	0.151	0.066	9	11	12	Clarke
5	90	0.231	0.083	8	10	12	Clay
5	90	0.261	0.089	8	10	12	Cleburne
0	107	0.114	0.057	9	11	12	Coffee
10	90	0.342	0.130	7	9	12	Colbert
5	109	0.130	0.059	9	11	12	Conecuh
5	93	0.200	0.078	8	11	12	Coosa
0	110	0.117	0.056	9	11	12	Covington
5	103	0.125	0.060	9	11	12	Crenshaw
10	90	0.298	0.105	7	10	12	Cullman
0	104	0.113	0.057	9	11	12	Dale
5	98	0.165	0.072	8	11	12	Dallas
10	90	0.380	0.107	7	9	12	De Kalb
5	95	0.166	0.071	8	11	12	Elmore
0	116	0.125	0.056	9	11	12	Escambia
5	90	0.308	0.099	7	10	12	Etowah
10	90	0.295	0.105	7	10	12	Fayette
10	90	0.322	0.124	7	9	12	Franklin
0	111	0.104	0.052	9	11	12	Geneva
5	93	0.216	0.086	8	11	12	Greene
5	94	0.200	0.081	8	11	12	Hale
0	100	0.116	0.058	8	11	12	Henry
0	106	0.108	0.054	9	11	12	Houston
10	90	0.343	0.108	6	9	12	Jackson
5	90	0.305	0.096	8	10	12	Jefferson
10	90	0.288	0.109	7	10	12	Lamar
10	90	0.348	0.133	7	9	12	Lauderdale
10	90	0.300	0.115	7	9	12	Lawrence
5	94	0.161	0.071	8	11	12	Lee
10	90	0.303	0.116	6	9	12	Limestone
5	99	0.147	0.067	8	11	12	Lowndes
5	96	0.150	0.068	8	11	12	Macon
10	90	0.302	0.111	6	9	12	Madison
5	98	0.175	0.075	9	11	12	Marengo
10	90	0.306	0.117	7	10	12	Marion
10	90	0.308	0.104	7	9	12	Marshall
0	**130**	0.117	0.053	10	12	12	Mobile
5	106	0.140	0.062	9	11	12	Monroe
5	98	0.154	0.069	8	11	12	Montgomery
10	90	0.296	0.113	7	9	12	Morgan
5	95	0.188	0.078	8	11	12	Perry
5	90	0.253	0.097	8	10	12	Pickens
5	100	0.125	0.061	8	11	12	Pike
5	90	0.217	0.082	8	10	12	Randolph
5	96	0.150	0.069	8	11	12	Russell
5	90	0.302	0.098	8	11	12	St. Clair
5	90	0.250	0.086	8	10	12	Shelby
5	97	0.200	0.082	8	11	12	Sumter
5	90	0.266	0.089	8	10	12	Talladega
5	93	0.182	0.075	8	11	12	Tallapoosa
5	90	0.265	0.093	8	10	12	Tuscaloosa
10	90	0.314	0.105	7	10	12	Walker
5	111	0.148	0.065	9	11	12	Washington
5	100	0.149	0.067	9	11	12	Wilcox
10	90	0.300	0.110	7	10	12	Winston
							ALASKA
30	130	1.762	0.692	—	—	16	Adak
50	110	1.540	0.580	—	—	16	Anchorage
70	120	0.688	0.314	—	—	12	Angoon
25	120	0.017	0.004	—	—	6	Barrow
35	110	0.141	0.044	—	—	6	Barter
40	120	0.293	0.094	—	—	16	Bethel
50	90	0.621	0.248	—	—	12	Big Delta
25	130	1.192	0.406	—	—	16	Cold Bay
100	130	1.792	0.668	—	—	16	Cordova
60	90	1.105	0.305	—	—	6/16	Fairbanks
60	90	0.466	0.139	—	—	16	Fort Yukon
60	110	0.349	0.102	—	—	16	Galena
70	95	0.873	0.310	—	—	16	Gulkana
40	130	1.464	0.558	—	—	16	Homer
60	100	0.606	0.286	—	—	12	Juneau
70	120	1.292	0.480	—	—	16	Kenai
30	130	1.790	0.664	—	—	16	Kodiak
60	120	0.427	0.129	—	—	6	Kotzebue
70	95	0.373	0.130	—	—	16	McGrath
80	90	1.050	0.295	—	—	6/12	Nenana
70	130	0.511	0.141	—	—	6	Nome
50	110	1.413	0.539	—	—	16	Palmer
150	110	0.187	0.178	—	—	12	Petersburg
40	130	0.263	0.096	—	—	16	St. Paul
50	130	1.785	0.665	—	—	16	Seward
25	130	1.272	0.490	—	—	16	Shemya
50	120	0.950	0.489	—	—	12	Sitka
120	100	1.271	0.428	—	—	16	Talkeetna
50	130	0.323	0.095	—	—	16	Unalakleet
160	120	1.487	0.577	—	—	16	Valdez
300	120	1.767	0.657	—	—	16	Whittier
60	110	0.169	0.153	—	—	12	Wrangell
150	120	1.800	0.675	—	—	12	Yakutat
							ARIZONA
5(5000)	90	0.234	0.068	4	6	4/6	Apache
0(3500)	90	0.291	0.084	5	7	6	Cochise
0(3000)	90*	0.397	0.115	4	6	6/8	Coconino
0(3500)	90	0.374	0.102	5	7	6	Gila
0(3500)	90	0.278	0.082	5	7	6	Graham
CS	90	0.311	0.088	4	6	6	Greenlee
0(2000)	90	0.216	0.144	4	6	6/8	La Paz
0(2000)	90	0.178	0.061	4	7	6	Maricopa
0(3000)	90	0.268	0.089	4	6	8	Mohave
0(3000)	90*	0.178	0.057	4	6	4/6	Navajo
0(3000)	90	0.284	0.081	6	8	6	Pima
0(2000)	90	0.254	0.076	5	8	6	Pinal
0(3500)	90	0.212	0.066	6	9	6	Santa Cruz
CS	90	0.345	0.101	4	7	6/8	Yavapai
0(1000)	90	0.641	0.253	4	6	6/8	Yuma
							ARKANSAS
10	90	0.601	0.190	8	10	12	Arkansas
10	90	0.272	0.108	8	11	12	Ashley
15	90	0.433	0.151	7	10	12	Baxter
15	90	0.192	0.087	8	11	12	Benton
15	90	0.313	0.120	8	10	12	Boone
10	90	0.320	0.120	8	11	12	Bradley
10	90	0.283	0.109	8	11	12	Calhoun
15	90	0.246	0.103	8	11	12	Carroll
10	90	0.314	0.119	8	11	12	Chicot
10	90	0.305	0.112	8	11	12	Clark
10	90	1.500	0.437	7	9	12	Clay
10	90	0.677	0.203	7	10	12	Cleburne
10	90	0.370	0.132	8	11	12	Cleveland
5	90	0.209	0.088	8	11	12	Columbia
10	90	0.451	0.148	8	11	12	Conway
10	90	2.775	0.709	7	10	12	Craighead
10	90	0.211	0.089	8	11	12	Crawford
10	90	1.500	0.517	7	10	12	Crittenden
10	90	1.889	0.550	7	10	12	Cross
10	90	0.325	0.120	8	11	12	Dallas
10	90	0.374	0.135	8	10	12	Desha
10	90	0.340	0.126	8	11	12	Drew
10	90	0.531	0.166	8	10	12	Faulkner
10	90	0.244	0.101	8	11	12	Franklin
15	90	0.579	0.183	7	10	12	Fulton
10	90	0.335	0.120	8	11	12	Garland
10	90	0.409	0.141	8	11	12	Grant
10	90	1.500	0.530	7	10	12	Greene
10	90	0.213	0.089	8	11	12	Hempstead
10	90	0.357	0.126	8	11	12	Hot Spring
10	90	0.212	0.089	8	11	12	Howard
10	90	0.779	0.230	7	10	12	Independence
10	90	0.629	0.195	7	10	12	Izard
10	90	1.081	0.306	7	10	12	Jackson

S	W	S_s	S_1	I1	I2	T_L	County Name
10	90	0.449	0.152	8	11	12	Jefferson
10	90	0.291	0.113	8	11	12	Johnson
5	90	0.195	0.084	8	11	12	Lafayette
10	90	1.100	0.305	7	10	12	Lawrence
10	90	0.903	0.260	7	10	12	Lee
10	90	0.400	0.141	8	11	12	Lincoln
10	90	0.183	0.080	8	11	12	Little River
10	90	0.253	0.104	8	11	12	Logan
10	90	0.610	0.190	8	10	12	Lonoke
10	90	0.240	0.101	8	11	12	Madison
15	90	0.385	0.140	8	10	12	Marion
5	90	0.178	0.078	8	11	12	Miller
10	90	3.328	1.255	7	9	12	Mississippi
10	90	0.714	0.218	7	10	12	Monroe
10	90	0.260	0.103	8	11	12	Montgomery
10	90	0.239	0.097	8	11	12	Nevada
10	90	0.319	0.121	8	11	12	Newton
10	90	0.263	0.103	8	11	12	Ouachita
10	90	0.422	0.142	8	11	12	Perry
10	90	0.744	0.225	8	10	12	Phillips
10	90	0.233	0.095	8	11	12	Pike
10	90	3.144	0.884	7	10	12	Poinsett
10	90	0.208	0.088	8	11	12	Polk
10	90	0.348	0.126	8	11	12	Pope
10	90	0.762	0.228	7	10	12	Prairie
10	90	0.503	0.163	8	11	12	Pulaski
10	90	0.934	0.259	7	10	12	Randolph
10	90	1.261	0.356	7	10	12	St. Francis
10	90	0.415	0.142	8	11	12	Saline
10	90	0.222	0.093	8	11	12	Scott
10	90	0.441	0.151	8	10	12	Searcy
10	90	0.214	0.091	8	11	12	Sebastian
10	90	0.188	0.081	8	11	12	Sevier
10	90	0.693	0.209	7	10	12	Sharp
10	90	0.594	0.186	7	10	12	Stone
5	90	0.236	0.096	8	11	12	Union
10	90	0.528	0.167	8	10	12	Van Buren
10	90	0.206	0.091	8	11	12	Washington
10	90	0.752	0.223	7	10	12	White
10	90	0.939	0.268	7	10	12	Woodruff
10	90	0.342	0.125	8	11	12	Yell
							CALIFORNIA
0(2400)	85	1.501	0.600	4	6	8/12	Alameda
CS	85*	1.749	0.728	4	6	6	Alpine
0(1500)	85*	0.376	0.185	4	6	6/12	Amador
0(1500)	85	0.533	0.211	4	6	16	Butte
0(1500)	85*	0.368	0.184	4	6	6/12	Calaveras
0(1500)	85	0.732	0.290	4	6	8/12	Colusa
0(1500)	85	1.500	0.600	4	6	8	Contra Costa
5(300)	85	1.548	0.755	4	6	16	Del Norte
CS	85*	0.454	0.193	4	6	6/12	El Dorado
0(1500)	85*	0.514	0.225	4	6	6/8/12	Fresno
5(800)	85	0.711	0.280	4	6	8/16	Glenn
0(700)	85	2.173	0.832	4	6	8/12/16	Humboldt
0(1000)	85*	1.500	0.600	4	6	8	Imperial
0(2000)	85*	1.202	0.462	4	6	6/8	Inyo
0(1800)	85*	1.164	0.415	4	6	6/8/12	Kern
0(1500)	85	0.638	0.265	4	6	12	Kings
CS	85	1.387	0.588	4	6	8	Lake
15(4400)	85*	1.013	0.353	4	6	16	Lassen
0(1800)	85*	2.182	0.733	4	6	8/12	Los Angeles
0(1500)	85*	0.547	0.228	4	6	6/12	Madera
0(1500)	85	1.500	0.600	4	6	8/12	Marin
0(1500)	85	0.522	0.205	4	6	6/12	Mariposa
0(800)	85	2.041	0.969	4	6	8/12	Mendocino
0(1500)	85	0.553	0.235	4	6	8/12	Merced
15(4400)	85*	0.699	0.271	4	6	16	Modoc
CS	85	1.499	0.543	4	6	6/8	Mono
0(1500)	85	1.391	0.633	4	6	8/12	Monterey
0(1500)	85	1.648	0.600	4	6	8	Napa
CS	85*	0.552	0.202	4	6	6/12/16	Nevada
0(1800)	85	1.401	0.498	4	6	8	Orange
CS	85*	0.408	0.191	4	6	6/12	Placer
CS	85*	1.004	0.321	4	6	16	Plumas
0(2000)	85*	1.500	0.600	4	6	8	Riverside
0(1500)	85	0.590	0.243	4	6	8/12	Sacramento
0(2400)	85	1.814	0.741	4	6	12	San Benito
0(2000)	85*	1.558	0.677	4	6	8/12	San Bernardino
0(1800)	85	1.577	0.619	4	6	8	San Diego
0(2400)	85	1.500	0.676	4	6	12	San Francisco
0(1500)	85	0.847	0.294	4	6	8/12	San Joaquin
0(1500)	85	1.331	0.493	4	6	8/12	San Luis Obispo
0(2400)	85	1.724	0.853	4	6	12	San Mateo
0(1500)	85	2.061	0.785	4	6	8/12	Santa Barbara
0(2400)	85	1.500	0.600	4	6	12	Santa Clara
0(2400)	85	1.500	0.600	4	6	12	Santa Cruz
CS	85*	0.747	0.279	4	6	16	Shasta
CS	85*	0.866	0.274	4	6	6/16	Sierra
CS	85*	0.603	0.251	4	6	16	Siskiyou
0(1500)	85	1.500	0.600	4	6	8	Solano
0(800)	85	1.948	0.777	4	6	8/12	Sonoma
0(1500)	85	0.839	0.299	4	6	8/12	Stanislaus
0(1500)	85	0.503	0.224	4	6	12	Sutter
5(800)	85	0.705	0.267	4	6	8/16	Tehama
CS	85	0.806	0.329	4	6	8/16	Trinity
0(1500)	85*	0.504	0.225	4	6	6/12	Tulare
CS	85*	0.380	0.181	4	6	6/12	Tuolumne
0(1800)	85	2.417	0.838	4	6	8/12	Ventura
0(1500)	85	0.883	0.322	4	6	8/12	Yolo
0(1500)	85	0.493	0.221	4	6	12	Yuba
							COLORADO
20	90*	0.206	0.054	4	7	4	Adams
CS	90*	0.341	0.110	4	6	6	Alamosa
20	90*	0.223	0.058	4	7	4	Arapahoe
CS	90	0.299	0.088	4	6	4/6	Archuleta
15	90	0.131	0.041	6	8	6	Baca
15	90	0.165	0.050	5	8	6	Bent
CS	90*	0.238	0.059	4	6	4	Boulder
CS	90	0.316	0.089	4	6	4/6	Chaffee
10(5000)	90	0.113	0.039	5	8	4/6	Cheyenne
CS	90*	0.256	0.063	4	6	4	Clear Creek
CS	90	0.303	0.100	4	6	6	Conejos
CS	90*	0.412	0.126	4	7	6	Costilla
10(5000)	90	0.187	0.058	5	8	6	Crowley
CS	90*	0.307	0.091	4	6	6	Custer
CS	90	0.361	0.076	4	6	4	Delta
20	90*	0.219	0.057	4	7	4	Denver
CS	90	0.211	0.056	4	6	4	Dolores
CS	90*	0.216	0.057	4	7	4	Douglas
CS	90	0.316	0.071	4	6	4	Eagle
20	90	0.193	0.053	4	7	4	Elbert
CS	90*	0.211	0.059	4	7	4/6	El Paso
CS	90*	0.250	0.072	4	6	6	Fremont
CS	90	0.361	0.075	4	6	4	Garfield
CS	90*	0.250	0.061	4	6	4	Gilpin
CS	90	0.264	0.064	4	6	4	Grand
CS	90	0.355	0.088	4	6	4/6	Gunnison
CS	90	0.459	0.110	4	6	4/6	Hinsdale
20(6200)	90*	0.250	0.074	4	7	6	Huerfano
CS	90	0.263	0.065	4	6	4	Jackson
CS	90*	0.236	0.059	4	6	4	Jefferson
10(5000)	90	0.133	0.044	5	8	6	Kiowa
20	90	0.107	0.038	5	8	4	Kit Carson
CS	90	0.287	0.071	4	6	4	Lake
CS	90	0.224	0.065	4	6	4	La Plata
20(6600)	90*	0.224	0.057	4	6	4	Larimer
20(6200)	90*	0.242	0.068	5	8	6	Las Animas
10(5000)	90	0.145	0.045	5	8	4/6	Lincoln
20	90	0.108	0.040	5	8	4	Logan
CS	90	0.286	0.067	4	6	4	Mesa
CS	90	0.374	0.101	4	6	4/6	Mineral
35(6000)	90	0.275	0.068	4	6	4	Moffat
CS	90	0.195	0.054	4	6	4	Montezuma
CS	90	0.404	0.084	4	6	4	Montrose
20	90	0.134	0.044	4	7	4	Morgan
10(5000)	90	0.186	0.056	5	8	6	Otero
CS	90	0.456	0.102	4	6	4	Ouray
CS	90*	0.273	0.070	4	6	4/6	Park
20	90	0.092	0.036	5	8	4	Phillips
CS	90	0.349	0.076	4	6	4	Pitkin
10(5000)	90	0.129	0.042	6	8	6	Prowers
10(5000)	90*	0.192	0.060	4	7	6	Pueblo
30(6000)	90	0.282	0.068	4	6	4	Rio Blanco
CS	90	0.309	0.097	4	6	6	Rio Grande
CS	90	0.269	0.067	4	6	4	Routt
CS	90*	0.350	0.106	4	6	4/6	Saguache
CS	90	0.424	0.099	4	6	4	San Juan

S	W	S_s	S_1	I1	I2	T_L	County Name
CS	90	0.414	0.093	4	6	4	San Miguel
20	90	0.093	0.036	5	8	4	Sedgwick
CS	90	0.269	0.067	4	6	4	Summit
CS	90*	0.242	0.066	4	7	4/6	Teller
20	90	0.113	0.041	5	8	4	Washington
20	90*	0.194	0.052	4	7	4	Weld
20	90	0.094	0.036	5	8	4	Yuma
							CONNECTICUT
30	**105**	0.270	0.064	6	8	6	Fairfield
30	99	0.239	0.064	5	7	6	Hartford
35	94*	0.246	0.065	5	7	6	Litchfield
30	**110**	0.238	0.062	6	8	6	Middlesex
30	**108**	0.243	0.062	6	8	6	New Haven
30	**115**	0.222	0.059	6	8	6	New London
30	100	0.234	0.064	5	7	6	Tolland
30	105	0.229	0.063	5	7	6	Windham
							DELAWARE
25	96	0.170	0.049	7	10	6/8	Kent
20	90	0.260	0.058	7	9	6	New Castle
20	**107**	0.130	0.045	7	10	6/8	Sussex
							DISTRICT OF COLUMBIA
25	90	0.153	0.050	7	10	8	
							FLORIDA
0	100	0.109	0.048	10	11	8	Alachua
0	97	0.134	0.058	10	11	8	Baker
0	**123**	0.083	0.045	10	12	12	Bay
0	98	0.122	0.053	10	11	8	Bradford
0	**121**	0.091	0.039	10	12	8	Brevard
0	**131**	0.054	0.021	12	14	8	Broward
0	**115**	0.094	0.048	10	12	12	Calhoun
0	**117**	0.069	0.026	10	12	8	Charlotte
0	**110**	0.090	0.039	10	12	8	Citrus
0	105	0.128	0.054	10	11	8	Clay
0	**128**	0.060	0.022	11	12	8	Collier
0	99	0.122	0.054	10	11	8	Columbia
0	110	0.074	0.028	10	12	8	De Soto
0	**119**	0.096	0.046	10	11	8/12	Dixie
0	115	0.143	0.060	10	11	8	Duval
0	**129**	0.099	0.048	10	12	12	Escambia
0	**115**	0.111	0.048	10	12	8	Flagler
0	**125**	0.074	0.041	10	12	12	Franklin
0	107	0.102	0.050	10	11	12	Gadsden
0	107	0.100	0.046	10	11	8	Gilchrist
0	115	0.074	0.026	11	12	8	Glades
0	**127**	0.075	0.042	10	12	12	Gulf
0	100	0.126	0.056	10	11	8	Hamilton
0	107	0.079	0.030	10	12	8	Hardee
0	**118**	0.074	0.025	11	12	8	Hendry
0	**112**	0.085	0.036	11	13	8	Hernando
0	110	0.080	0.030	10	12	8	Highlands
0	**110**	0.075	0.031	10	12	8	Hillsborough
0	114	0.098	0.050	10	11	12	Holmes
0	**126**	0.071	0.030	10	12	8	Indian River
0	109	0.099	0.050	10	11	12	Jackson
0	**106**	0.107	0.052	10	11	12	Jefferson
0	109	0.107	0.050	10	11	8/12	Lafayette
0	101	0.098	0.040	10	12	8	Lake
0	**121**	0.068	0.024	10	12	8	Lee
0	108	0.101	0.049	10	11	12	Leon
0	**113**	0.099	0.045	10	11	8	Levy
0	**115**	0.094	0.048	10	12	12	Liberty
0	105	0.113	0.053	10	11	8/12	Madison
0	**116**	0.066	0.028	10	12	8	Manatee
0	98	0.100	0.043	10	11	8	Marion
0	**130**	0.065	0.027	11	14	8	Martin
0	**140**	0.051	0.019	12	14	8	Miami-Dade
0	**141**	0.026	0.013	11	12	8	Monroe
0	**109**	0.167	0.068	10	11	8	Nassau
0	**124**	0.103	0.051	10	12	12	Okaloosa
0	116	0.075	0.028	10	12	8	Okeechobee
0	**105**	0.096	0.038	10	12	8	Orange
0	109	0.093	0.036	10	12	8	Osceola
0	**130**	0.058	0.024	12	14	8	Palm Beach
0	**111**	0.086	0.035	11	13	8	Pasco
0	**126**	0.068	0.030	10	12	8	Pinellas
0	105	0.084	0.032	10	12	8	Polk
0	106	0.117	0.049	10	11	8	Putnam
0	**119**	0.126	0.053	10	11	8	St. Johns
0	**130**	0.068	0.029	11	12	8	St. Lucie
0	**124**	0.106	0.050	10	12	12	Santa Rosa
0	**125**	0.065	0.027	10	12	8	Sarasota
0	**110**	0.098	0.041	10	12	8	Seminole
0	99	0.091	0.038	10	12	8	Sumter
0	103	0.118	0.053	10	11	8	Suwannee
0	**111**	0.101	0.049	10	11	12	Taylor
0	98	0.121	0.053	10	11	8	Union
0	**119**	0.101	0.043	10	12	8	Volusia
0	**113**	0.093	0.047	10	12	12	Wakulla
0	**120**	0.098	0.050	10	12	12	Walton
0	117	0.098	0.050	10	11	12	Washington
							GEORGIA
0	101	0.212	0.081	8	11	8	Appling
0	96	0.156	0.067	9	11	8	Atkinson
0	99	0.189	0.075	8	11	8	Bacon
0	99	0.118	0.058	9	11	12	Baker
5	91	0.235	0.086	8	10	8	Baldwin
10	90	0.280	0.095	7	9	12	Banks
5	90	0.246	0.090	7	10	12	Barrow
5	90	0.318	0.097	7	10	12	Bartow
0	96	0.157	0.069	8	11	8	Ben Hill
0	97	0.138	0.063	9	11	8	Berrien
5	92	0.202	0.079	8	10	8/12	Bibb
5	94	0.184	0.076	8	11	8	Bleckley
0	107	0.191	0.075	9	11	8	Brantley
0	101	0.118	0.056	9	11	12	Brooks
0	**115**	0.325	0.107	9	11	8	Bryan
0	105	0.336	0.110	8	11	8	Bulloch
5	96	0.345	0.111	8	10	8	Burke
5	90	0.206	0.081	8	10	12	Butts
0	98	0.120	0.059	8	11	12	Calhoun
0	**116**	0.183	0.072	9	11	8	Camden
0	100	0.291	0.100	8	11	8	Candler
5	90	0.228	0.085	8	10	12	Carroll
10(1800)	90	0.488	0.116	7	9	12	Catoosa
0	104	0.163	0.067	9	11	8	Charlton
0	**120**	0.405	0.123	9	11	8	Chatham
5	94	0.143	0.067	8	11	12	Chattahoochee
5	90	0.431	0.109	7	10	12	Chattooga
5	90	0.300	0.096	7	10	12	Cherokee
5	90	0.260	0.092	7	10	8/12	Clarke
0	98	0.118	0.059	8	11	12	Clay
5	90	0.208	0.082	8	10	12	Clayton
0	97	0.148	0.065	9	11	8	Clinch
5	90	0.255	0.089	8	10	12	Cobb
0	96	0.166	0.070	8	11	8	Coffee
0	98	0.124	0.059	9	11	12	Colquitt
5	92	0.337	0.106	8	10	8	Columbia
0	98	0.132	0.060	9	11	8/12	Cook
5	90	0.200	0.080	8	10	12	Coweta
5	92	0.177	0.075	8	10	12	Crawford
0	95	0.148	0.067	8	11	8/12	Crisp
10(1800)	90	0.436	0.114	7	9	12	Dade
5	90	0.300	0.097	7	9	12	Dawson
0	104	0.108	0.053	9	11	12	Decatur
5	90	0.227	0.086	8	10	12	De Kalb
0	94	0.182	0.075	8	11	8	Dodge
0	94	0.152	0.069	8	11	8/12	Dooly
0	97	0.127	0.061	8	11	12	Dougherty
5	90	0.236	0.086	8	10	12	Douglas
0	102	0.113	0.056	9	11	12	Early
0	99	0.129	0.058	9	11	8	Echols
0	108	0.425	0.127	9	11	8	Effingham
10	90	0.320	0.100	7	10	8	Elbert
5	97	0.269	0.096	8	11	8	Emanuel
0	104	0.291	0.100	8	11	8	Evans
10(1800)	90	0.426	0.109	7	9	12	Fannin
5	90	0.203	0.081	7	10	12	Fayette
5	90	0.376	0.103	7	10	12	Floyd
5	90	0.268	0.093	7	10	12	Forsyth
10	90	0.298	0.098	7	9	8/12	Franklin

S	W	S_s	S_1	I1	I2	T_L	County Name
5	90	0.226	0.085	8	10	12	Fulton
10(1800)	90	0.408	0.107	7	9	12	Gilmer
5	92	0.281	0.097	8	10	8	Glascock
0	**119**	0.210	0.079	9	11	8	Glynn
5	90	0.428	0.108	7	9	12	Gordon
0	103	0.111	0.054	9	11	12	Grady
5	90	0.259	0.091	8	10	8	Greene
5	90	0.240	0.088	7	10	12	Gwinnett
10(1800)	90	0.313	0.099	7	9	12	Habersham
5	90	0.271	0.093	7	9	12	Hall
5	90	0.257	0.091	8	10	8	Hancock
5	90	0.265	0.090	8	10	12	Haralson
5	92	0.164	0.072	8	11	12	Harris
10	90	0.323	0.101	7	9	8/12	Hart
5	90	0.200	0.079	8	10	12	Heard
5	90	0.207	0.082	8	10	12	Henry
5	93	0.172	0.073	8	11	8/12	Houston
0	96	0.152	0.067	8	11	8	Irwin
5	90	0.259	0.092	7	10	12	Jackson
5	90	0.222	0.084	8	10	8/12	Jasper
0	97	0.201	0.079	8	11	8	Jeff Davis
5	94	0.284	0.099	8	10	8	Jefferson
5	98	0.338	0.110	8	11	8	Jenkins
5	95	0.240	0.089	8	11	8	Johnson
5	90	0.217	0.082	8	10	8/12	Jones
5	90	0.188	0.078	8	10	12	Lamar
0	97	0.138	0.062	9	11	8	Lanier
5	95	0.217	0.084	8	11	8	Laurens
0	96	0.131	0.063	8	11	12	Lee
0	**114**	0.291	0.099	9	11	8	Liberty
5	90	0.343	0.105	7	10	8	Lincoln
0	109	0.256	0.091	9	11	8	Long
0	99	0.126	0.058	9	11	8/12	Lowndes
10(1800)	90	0.310	0.098	7	9	12	Lumpkin
5	92	0.309	0.102	8	10	8	McDuffie
0	**122**	0.238	0.086	9	11	8	McIntosh
5	93	0.153	0.069	8	11	12	Macon
5	90	0.281	0.095	7	10	8/12	Madison
5	93	0.146	0.068	8	11	12	Marion
5	90	0.178	0.076	8	10	12	Meriwether
0	103	0.111	0.055	9	11	12	Miller
0	99	0.118	0.057	9	11	12	Mitchell
5	90	0.196	0.079	8	10	12	Monroe
0	97	0.219	0.084	8	11	8	Montgomery
5	90	0.242	0.088	8	10	8/12	Morgan
10(1800)	90	0.467	0.113	7	9	12	Murray
5	93	0.149	0.069	8	11	12	Muscogee
5	90	0.223	0.085	8	10	12	Newton
5	90	0.254	0.091	7	10	8/12	Oconee
5	90	0.279	0.095	7	10	8	Oglethorpe
5	90	0.269	0.091	7	10	12	Paulding
5	92	0.171	0.073	8	11	12	Peach
5	90	0.343	0.100	7	9	12	Pickens
0	102	0.185	0.074	9	11	8	Pierce
5	90	0.185	0.077	8	10	12	Pike
5	90	0.325	0.097	7	10	12	Polk
0	93	0.173	0.074	8	11	8/12	Pulaski
5	90	0.239	0.087	8	10	8/12	Putnam
5	97	0.126	0.062	8	11	12	Quitman
10(1800)	90	0.360	0.104	7	9	12	Rabun
0	97	0.124	0.061	8	11	12	Randolph
5	94	0.379	0.115	8	10	8	Richmond
5	90	0.221	0.085	8	10	12	Rockdale
5	94	0.145	0.068	8	11	12	Schley
5	101	0.400	0.122	8	11	8	Screven
0	104	0.107	0.053	9	11	12	Seminole
5	90	0.194	0.079	8	10	12	Spalding
10(1800)	90	0.314	0.099	7	9	12	Stephens
5	96	0.133	0.064	8	11	12	Stewart
0	95	0.141	0.066	8	11	12	Sumter
5	92	0.161	0.072	8	11	12	Talbot
5	90	0.280	0.095	8	10	8	Taliaferro
0	103	0.257	0.092	8	11	8	Tattnall
5	93	0.161	0.071	8	11	12	Taylor
0	96	0.193	0.077	8	11	8	Telfair
0	96	0.128	0.062	8	11	12	Terrell
0	102	0.113	0.054	9	11	12	Thomas
0	97	0.139	0.064	8	11	8/12	Tift
0	99	0.245	0.090	8	11	8	Toombs
10(1800)	90	0.385	0.106	7	9	12	Towns
S	W	S_s	S_1	I1	I2	T_L	County Name
0	96	0.230	0.087	8	11	8	Treutlen
5	91	0.181	0.076	8	10	12	Troup
0	96	0.143	0.066	8	11	8/12	Turner
5	93	0.204	0.080	8	10	8/12	Twiggs
10(1800)	90	0.383	0.105	7	9	12	Union
5	92	0.175	0.075	8	10	12	Upson
10(1800)	90	0.467	0.114	7	9	12	Walker
5	90	0.236	0.088	7	10	12	Walton
0	98	0.173	0.071	9	11	8	Ware
5	90	0.289	0.098	8	10	8	Warren
5	93	0.248	0.091	8	10	8	Washington
0	106	0.232	0.086	9	11	8	Wayne
5	96	0.136	0.065	8	11	12	Webster
0	96	0.204	0.080	8	11	8	Wheeler
10(1800)	90	0.310	0.098	7	9	12	White
10(1800)	90	0.484	0.115	7	9	12	Whitfield
0	95	0.166	0.072	8	11	8/12	Wilcox
5	90	0.310	0.100	7	10	8	Wilkes
5	93	0.220	0.084	8	10	8	Wilkinson
0	97	0.133	0.062	8	11	12	Worth
							HAWAII
—	**105**	1.500	0.600	—	—	12	Hawaii
—	**105**	0.614	0.178	—	—	4	Honolulu
—	**105**	0.244	0.068	—	—	4	Kauai
—	**105**	0.970	0.248	—	—	6	Maui
							IDAHO
10(3200)	90	0.308	0.105	4	6	6	Ada
CS	90	0.474	0.142	4	6	6	Adams
CS	90	0.529	0.164	4	6	6	Bannock
CS	90	1.098	0.417	4	6	6	Bear Lake
CS	90	0.363	0.107	4	6	6	Benewah
20(4500)	90	0.489	0.156	4	6	6	Bingham
CS	90	0.480	0.150	4	6	6	Blaine
CS	90	0.501	0.148	4	6	6	Boise
CS	90	0.374	0.109	4	6	6	Bonner
CS	90	0.530	0.169	4	6	6/8	Bonneville
CS	90	0.314	0.097	4	6	6	Boundary
CS	90	0.633	0.210	4	6	6	Butte
CS	90	0.368	0.119	4	6	6	Camas
10(3200)	90	0.281	0.098	4	6	6	Canyon
CS	90	0.873	0.277	4	6	6	Caribou
10(3800)	90	0.252	0.096	4	6	6	Cassia
CS	90*	0.464	0.168	4	6	6	Clark
CS	90*	0.302	0.093	4	6	6	Clearwater
CS	90	0.954	0.297	4	6	6	Custer
20(3200)	90	0.272	0.092	4	6	6	Elmore
CS	90	0.755	0.247	4	6	6	Franklin
CS	90*	0.492	0.171	4	6	6	Fremont
CS	90	0.343	0.115	4	6	6	Gem
CS	90	0.290	0.095	4	6	6	Gooding
CS	90*	0.303	0.095	4	6	6	Idaho
CS	90	0.483	0.162	4	6	6	Jefferson
10(3800)	90	0.257	0.089	4	6	6	Jerome
CS	90	0.408	0.115	4	6	6	Kootenai
CS	90	0.305	0.095	4	6	6	Latah
10(5000)	90*	0.512	0.161	4	6	6	Lemhi
CS	90	0.300	0.092	4	6	6	Lewis
CS	90	0.268	0.093	4	6	6	Lincoln
CS	90	0.469	0.163	4	6	6	Madison
20(4500)	90	0.233	0.094	4	6	6	Minidoka
CS	90	0.305	0.095	4	6	6	Nez Perce
CS	90	0.686	0.216	4	6	6	Oneida
CS	90	0.261	0.089	4	6	6/8	Owyhee
CS	90	0.313	0.107	4	6	6	Payette
10(3800)	90	0.367	0.128	4	6	6	Power
CS	90	0.411	0.119	4	6	6	Shoshone
CS	90	0.804	0.266	4	6	6/8	Teton
10(3800)	90	0.260	0.089	4	6	6	Twin Falls
CS	90	0.494	0.152	4	6	6	Valley
CS	90	0.333	0.111	4	6	6	Washington
							ILLINOIS
20	90	0.179	0.082	6	9	12	Adams
15	90	3.369	1.286	6	9	12	Alexander
20	90	0.566	0.166	6	9	12	Bond
25	90	0.155	0.055	5	7	12	Boone
20	90	0.203	0.088	6	9	12	Brown
25	90	0.167	0.067	6	8	12	Bureau

S	W	S_s	S_1	I1	I2	T_L	County Name	S	W	S_s	S_1	I1	I2	T_L	County Name
20	90	0.335	0.120	6	9	12	Calhoun	20	90	0.199	0.087	6	9	12	Schuyler
25	90	0.131	0.054	6	6	12	Carroll	20	90	0.258	0.104	6	8	12	Scott
20	90	0.227	0.096	6	9	12	Cass	20	90	0.394	0.131	6	8	12	Shelby
20	90	0.237	0.096	6	8	12	Champaign	20	90	0.158	0.069	6	8	12	Stark
20	90	0.338	0.120	6	8	12	Christian	30	90	0.133	0.053	6	8	12	Stephenson
20	90	0.372	0.123	6	8	12	Clark	20	90	0.183	0.081	6	8	12	Tazewell
20	90	0.657	0.181	6	8	12	Clay	15	90	1.500	0.532	6	9	12	Union
20	90	0.679	0.191	6	9	12	Clinton	20	90	0.226	0.092	6	8	12	Vermilion
20	90	0.363	0.123	6	8	12	Coles	20	90	0.670	0.184	6	8	12	Wabash
25	90	0.165	0.060	5	7	12	Cook	20	90	0.146	0.069	6	9	12	Warren
20	90	0.496	0.147	6	8	12	Crawford	20	90	0.774	0.218	6	9	12	Washington
20	90	0.439	0.138	6	8	12	Cumberland	20	90	0.798	0.215	6	8	12	Wayne
25	90	0.179	0.060	6	8	12	De Kalb	15	90	0.839	0.229	6	8	12	White
20	90	0.229	0.095	6	8	12	De Witt	25	90	0.144	0.059	6	8	12	Whiteside
20	90	0.292	0.108	6	8	12	Douglas	25	90	0.191	0.067	6	8	12	Will
25	90	0.186	0.062	5	8	12	Du Page	15	90	1.118	0.306	6	9	12	Williamson
20	90	0.318	0.112	6	8	12	Edgar	25	90	0.149	0.055	6	8	12	Winnebago
20	90	0.751	0.203	6	8	12	Edwards	20	90	0.180	0.079	6	8	12	Woodford
20	90	0.502	0.152	6	8	12	Effingham								
20	90	0.556	0.164	6	8	12	Fayette								**INDIANA**
20	90	0.199	0.084	6	8	12	Ford	20	90	0.184	0.064	5	7	12	Adams
15	90	0.942	0.254	6	9	12	Franklin	20	90	0.148	0.059	5	7	12	Allen
20	90	0.188	0.083	6	8	12	Fulton	20	90	0.209	0.090	5	8	12	Bartholomew
15	90	0.915	0.250	6	8	12	Gallatin	20	90	0.173	0.076	6	8	12	Benton
20	90	0.326	0.118	6	9	12	Greene	20	90	0.164	0.068	5	7	12	Blackford
25	90	0.189	0.069	6	8	12	Grundy	20	90	0.190	0.082	5	8	12	Boone
15	90	0.899	0.242	6	8	12	Hamilton	20	90	0.237	0.097	6	8	12	Brown
20	90	0.158	0.074	6	9	12	Hancock	20	90	0.157	0.072	5	8	12	Carroll
15	90	1.036	0.281	6	8	12	Hardin	20	90	0.144	0.068	5	7	12	Cass
20	90	0.137	0.066	6	9	12	Henderson	15	90	0.244	0.102	6	8	12	Clark
20	90	0.146	0.065	6	8	12	Henry	20	90	0.300	0.107	6	8	12	Clay
20	90	0.176	0.076	6	8	12	Iroquois	20	90	0.173	0.077	5	8	12	Clinton
15	90	1.067	0.293	6	9	12	Jackson	15	90	0.328	0.121	6	8	12	Crawford
20	90	0.548	0.158	6	9	12	Jasper	20	90	0.454	0.143	6	8	12	Daviess
20	90	0.825	0.226	6	9	12	Jefferson	20	90	0.177	0.078	5	8	12	Dearborn
20	90	0.386	0.131	6	9	12	Jersey	20	90	0.182	0.082	5	8	12	Decatur
30	90	0.102	0.048	6	8	12	Jo Daviess	20	90	0.138	0.056	5	7	12	De Kalb
15	90	1.738	0.521	6	9	12	Johnson	20	90	0.165	0.070	5	7	12	Delaware
25	90	0.188	0.062	5	8	12	Kane	15	90	0.423	0.140	6	8	12	Dubois
25	90	0.176	0.071	6	8	12	Kankakee	25	90	0.121	0.055	5	7	12	Elkhart
25	90	0.194	0.066	6	8	12	Kendall	20	90	0.169	0.075	5	7	12	Fayette
20	90	0.151	0.070	6	8	12	Knox	15	90	0.251	0.103	6	8	12	Floyd
30	90	0.138	0.053	5	7	12	Lake	20	90	0.218	0.089	6	8	12	Fountain
25	90	0.181	0.069	6	8	12	La Salle	20	90	0.170	0.076	5	7	12	Franklin
20	90	0.572	0.162	6	8	12	Lawrence	20	90	0.133	0.063	5	7	12	Fulton
25	90	0.162	0.060	6	8	12	Lee	15	90	0.621	0.177	6	8	12	Gibson
20	90	0.180	0.076	6	8	12	Livingston	20	90	0.151	0.067	5	7	12	Grant
20	90	0.224	0.094	6	8	12	Logan	20	90	0.348	0.119	6	8	12	Greene
20	90	0.170	0.077	6	9	12	McDonough	20	90	0.170	0.077	5	8	12	Hamilton
25	90	0.154	0.055	5	7	12	McHenry	20	90	0.174	0.078	5	8	12	Hancock
20	90	0.197	0.085	6	8	12	McLean	15	90	0.288	0.112	6	8	12	Harrison
20	90	0.280	0.107	6	8	12	Macon	20	90	0.218	0.089	6	8	12	Hendricks
20	90	0.382	0.130	6	9	12	Macoupin	20	90	0.166	0.073	5	7	12	Henry
20	90	0.549	0.162	6	9	12	Madison	20	90	0.152	0.071	5	7	12	Howard
20	90	0.705	0.195	6	8	12	Marion	20	90	0.145	0.063	5	7	12	Huntington
20	90	0.168	0.072	6	8	12	Marshall	20	90	0.238	0.099	6	8	12	Jackson
20	90	0.197	0.086	6	8	12	Mason	20	90	0.155	0.070	5	8	12	Jasper
15	90	1.985	0.583	6	9	12	Massac	20	90	0.196	0.068	5	7	12	Jay
20	90	0.230	0.097	6	8	12	Menard	20	90	0.202	0.089	5	8	12	Jefferson
20	90	0.133	0.063	6	9	12	Mercer	20	90	0.201	0.089	5	8	12	Jennings
20	90	0.676	0.190	6	9	12	Monroe	20	90	0.204	0.088	5	8	12	Johnson
20	90	0.455	0.145	6	8	12	Montgomery	20	90	0.547	0.159	6	8	12	Knox
20	90	0.255	0.103	6	9	12	Morgan	20	90	0.128	0.059	5	7	12	Kosciusko
20	90	0.336	0.119	6	8	12	Moultrie	20	90	0.124	0.053	5	7	12	Lagrange
25	90	0.159	0.058	6	8	12	Ogle	25	90	0.158	0.064	5	7	12	Lake
20	90	0.176	0.078	6	8	12	Peoria	CS	90	0.130	0.058	5	7	12	La Porte
20	90	0.859	0.238	6	9	12	Perry	20	90	0.293	0.110	6	8	12	Lawrence
20	90	0.250	0.100	6	8	12	Piatt	20	90	0.162	0.073	5	7	12	Madison
20	90	0.240	0.100	6	9	12	Pike	20	90	0.193	0.084	5	8	12	Marion
15	90	1.238	0.339	6	8	12	Pope	25	90	0.127	0.059	5	7	12	Marshall
15	90	3.390	1.311	6	9	12	Pulaski	20	90	0.362	0.126	6	8	12	Martin
20	90	0.169	0.069	6	8	12	Putnam	20	90	0.142	0.066	5	7	12	Miami
20	90	0.854	0.238	6	9	12	Randolph	20	90	0.273	0.104	6	8	12	Monroe
20	90	0.651	0.177	6	8	12	Richland	20	90	0.210	0.087	6	8	12	Montgomery
25	90	0.130	0.060	6	8	12	Rock Island	20	90	0.238	0.096	6	8	12	Morgan
20	90	0.653	0.184	6	9	12	St. Clair	20	90	0.169	0.074	6	8	12	Newton
15	90	1.014	0.272	6	8	12	Saline	20	90	0.129	0.056	5	7	12	Noble
20	90	0.268	0.105	6	8	12	Sangamon	20	90	0.183	0.080	5	8	12	Ohio

S	W	S_s	S_1	I1	I2	T_L	County Name
15	90	0.314	0.117	6	8	12	Orange
20	90	0.293	0.107	6	8	12	Owen
20	90	0.267	0.100	6	8	12	Parke
15	90	0.406	0.142	6	8	12	Perry
15	90	0.508	0.154	6	8	12	Pike
25	90	0.144	0.062	5	7	12	Porter
15	90	0.781	0.220	6	8	12	Posey
20	90	0.138	0.065	5	7	12	Pulaski
20	90	0.258	0.098	6	8	12	Putnam
20	90	0.187	0.070	5	7	12	Randolph
20	90	0.184	0.083	5	8	12	Ripley
20	90	0.172	0.078	5	8	12	Rush
CS	90	0.119	0.055	5	7	12	St Joseph
20	90	0.226	0.097	6	8	12	Scott
20	90	0.186	0.083	5	8	12	Shelby
15	90	0.489	0.159	6	8	12	Spencer
25	90	0.133	0.062	5	7	12	Starke
20	90	0.131	0.053	5	7	12	Steuben
20	90	0.418	0.132	6	8	12	Sullivan
20	90	0.194	0.085	5	8	12	Switzerland
20	90	0.175	0.078	6	8	12	Tippecanoe
20	90	0.160	0.073	5	7	12	Tipton
20	90	0.170	0.073	5	7	12	Union
15	90	0.656	0.191	6	8	12	Vanderburgh
20	90	0.254	0.098	6	8	12	Vermillion
20	90	0.332	0.114	6	8	12	Vigo
20	90	0.141	0.065	5	7	12	Wabash
20	90	0.200	0.084	6	8	12	Warren
15	90	0.552	0.169	6	8	12	Warrick
20	90	0.263	0.105	6	8	12	Washington
20	90	0.175	0.072	5	7	12	Wayne
20	90	0.169	0.065	5	7	12	Wells
20	90	0.152	0.070	5	8	12	White
20	90	0.135	0.059	5	7	12	Whitley
							IOWA
25	90	0.082	0.043	7	10	12	Adair
20	90	0.092	0.044	7	10	12	Adams
35	90	0.068	0.037	6	8	12	Allamakee
20	90	0.098	0.055	7	9	12	Appanoose
25	90	0.081	0.039	7	10	12	Audubon
25	90	0.081	0.045	6	9	12	Benton
30	90	0.071	0.041	6	9	12	Black Hawk
25	90	0.069	0.039	7	10	12	Boone
30	90	0.067	0.039	6	9	12	Bremer
30	90	0.076	0.043	6	8	12	Buchanan
35	90	0.075	0.035	7	10	12	Buena Vista
35	90	0.065	0.038	6	9	12	Butler
30	90	0.070	0.036	7	10	12	Calhoun
25	90	0.076	0.037	7	10	12	Carroll
25	90	0.088	0.041	7	10	12	Cass
25	90	0.106	0.053	6	8	12	Cedar
40	90	0.060	0.034	6	9	12	Cerro Gordo
35	90	0.080	0.034	7	10	12	Cherokee
35	90	0.064	0.037	6	8	12	Chickasaw
20	90	0.084	0.047	7	10	12	Clarke
35	90	0.072	0.033	6	9	12	Clay
30	90	0.075	0.041	6	8	12	Clayton
25	90	0.134	0.057	6	8	12	Clinton
25	90	0.084	0.037	7	10	12	Crawford
25	90	0.075	0.042	7	10	12	Dallas
20	90	0.105	0.058	7	9	12	Davis
20	90	0.089	0.050	7	10	12	Decatur
30	90	0.081	0.044	6	8	12	Delaware
20	90	0.137	0.067	6	9	12	Des Moines
40	90	0.071	0.032	6	9	12	Dickinson
30	90	0.094	0.046	6	8	12	Dubuque
40	90	0.068	0.032	6	9	12	Emmet
30	90	0.069	0.039	6	8	12	Fayette
35	90	0.062	0.036	6	9	12	Floyd
35	90	0.063	0.037	6	9	12	Franklin
25	90	0.124	0.045	7	10	12	Fremont
25	90	0.071	0.039	7	10	12	Greene
30	90	0.069	0.041	6	9	12	Grundy
25	90	0.077	0.040	7	10	12	Guthrie
30	90	0.065	0.037	6	9	12	Hamilton
40	90	0.061	0.034	6	9	12	Hancock
30	90	0.067	0.040	6	9	12	Hardin
25	90	0.102	0.039	7	10	12	Harrison
20	90	0.118	0.061	6	9	12	Henry
40	90	0.062	0.035	6	8	12	Howard
35	90	0.065	0.035	6	9	12	Humboldt
30	90	0.082	0.036	7	10	12	Ida
25	90	0.088	0.048	6	9	12	Iowa
25	90	0.108	0.051	6	8	12	Jackson
25	90	0.077	0.045	7	9	12	Jasper
20	90	0.107	0.058	6	9	12	Jefferson
25	90	0.100	0.052	6	9	12	Johnson
25	90	0.093	0.048	6	8	12	Jones
20	90	0.095	0.052	6	9	12	Keokuk
40	90	0.063	0.033	6	9	12	Kossuth
20	90	0.149	0.072	6	9	12	Lee
25	90	0.090	0.048	6	8	12	Linn
20	90	0.121	0.061	6	9	12	Louisa
20	90	0.086	0.049	7	10	12	Lucas
40	90	0.094	0.033	6	9	12	Lyon
20	90	0.079	0.044	7	10	12	Madison
20	90	0.088	0.050	7	9	12	Mahaska
20	90	0.082	0.048	7	9	12	Marion
25	90	0.073	0.043	6	9	12	Marshall
25	90	0.119	0.043	7	10	12	Mills
40	90	0.060	0.034	6	8	12	Mitchell
25	90	0.100	0.037	7	10	12	Monona
20	90	0.092	0.052	7	9	12	Monroe
25	90	0.102	0.043	7	10	12	Montgomery
20	90	0.118	0.058	6	8	12	Muscatine
35	90	0.080	0.033	6	9	12	O'Brien
40	90	0.083	0.032	6	9	12	Osceola
20	90	0.105	0.045	7	10	12	Page
35	90	0.067	0.033	6	9	12	Palo Alto
35	90	0.093	0.034	7	10	12	Plymouth
35	90	0.068	0.035	7	9	12	Pocahontas
25	90	0.075	0.044	7	10	12	Polk
25	90	0.117	0.042	7	10	12	Pottawattamie
25	90	0.085	0.048	6	9	12	Poweshiek
20	90	0.091	0.048	7	10	12	Ringgold
30	90	0.073	0.036	7	10	12	Sac
25	90	0.130	0.060	6	8	12	Scott
25	90	0.090	0.039	7	10	12	Shelby
35	90	0.089	0.034	6	9	12	Sioux
25	90	0.070	0.041	7	9	12	Story
25	90	0.077	0.044	6	9	12	Tama
20	90	0.099	0.047	7	10	12	Taylor
20	90	0.086	0.045	7	10	12	Union
20	90	0.116	0.062	6	9	12	Van Buren
20	90	0.099	0.055	7	9	12	Wapello
20	90	0.079	0.046	7	10	12	Warren
20	90	0.105	0.056	6	9	12	Washington
20	90	0.092	0.052	7	10	12	Wayne
30	90	0.066	0.036	7	9	12	Webster
40	90	0.060	0.033	6	9	12	Winnebago
35	90	0.065	0.036	6	8	12	Winneshiek
30	90	0.101	0.036	7	10	12	Woodbury
40	90	0.059	0.033	6	9	12	Worth
35	90	0.063	0.036	6	9	12	Wright
							KANSAS
20	90	0.117	0.059	8	11	12	Allen
20	90	0.120	0.058	8	10	12	Anderson
20	90	0.130	0.053	7	10	12	Atchison
15	90	0.137	0.048	7	11	12	Barber
20	90	0.112	0.043	7	10	12	Barton
20	90	0.128	0.066	8	11	12	Bourbon
20	90	0.144	0.050	7	10	12	Brown
15	90	0.128	0.052	8	11	12	Butler
20	90	0.132	0.051	8	11	12	Chase
15	90	0.124	0.058	8	11	12	Chautauqua
15	90	0.137	0.070	8	11	12	Cherokee
20	90	0.093	0.035	6	9	4	Cheyenne
15	90	0.122	0.044	7	10	12	Clark
20	90	0.167	0.048	7	10	12	Clay
25	90	0.130	0.043	7	10	12	Cloud
20	90	0.118	0.055	8	10	12	Coffey
15	90	0.124	0.045	7	10	12	Comanche
15	90	0.133	0.054	8	11	12	Cowley
15	90	0.130	0.067	8	11	12	Crawford
25	90	0.102	0.036	6	9	4/12	Decatur
20	90	0.147	0.048	7	10	12	Dickinson
20	90	0.125	0.051	7	10	12	Doniphan
20	90	0.133	0.055	7	10	12	Douglas

S	W	S_s	S_1	I1	I2	T_L	County Name	S	W	S_s	S_1	I1	I2	T_L	County Name
15	90	0.107	0.042	7	10	12	Edwards	20	90	0.100	0.037	6	9	6/12	Wichita
15	90	0.119	0.056	8	11	12	Elk	15	90	0.116	0.058	8	11	12	Wilson
25	90	0.129	0.041	7	10	12	Ellis	20	90	0.128	0.058	8	11	12	Woodson
20	90	0.113	0.043	7	10	12	Ellsworth	20	90	0.128	0.058	7	10	12	Wyandotte
15	90	0.100	0.039	7	9	12	Finney								
15	90	0.103	0.041	7	10	12	Ford								**KENTUCKY**
20	90	0.125	0.056	7	10	12	Franklin	15(2600)	90	0.232	0.101	6	8	12	Adair
20	90	0.182	0.051	7	10	12	Geary	15	90	0.298	0.121	6	8	12	Allen
20	90	0.100	0.038	7	9	4/12	Gove	15	90	0.217	0.091	6	8	12	Anderson
25	90	0.122	0.039	7	10	12	Graham	15	90	3.268	1.026	6	8	12	Ballard
15	90	0.108	0.039	6	9	6/12	Grant	15	90	0.272	0.113	6	8	12	Barren
15	90	0.101	0.040	7	10	12	Gray	15	90	0.254	0.083	5	8	12	Bath
10(5000)	90	0.106	0.037	6	9	6	Greeley	15(2600)	90	0.374	0.102	6	8	12	Bell
20	90	0.118	0.054	8	11	12	Greenwood	20	90	0.179	0.078	5	7	12	Boone
10(5000)	90	0.113	0.038	6	9	6	Hamilton	15	90	0.240	0.085	5	8	12	Bourbon
15	90	0.147	0.051	8	11	12	Harper	20	90	0.194	0.071	5	8	12	Boyd
20	90	0.132	0.049	7	11	12	Harvey	15	90	0.219	0.092	6	8	12	Boyle
15	90	0.105	0.040	7	9	12	Haskell	20	90	0.213	0.078	5	8	12	Bracken
20	90	0.102	0.040	7	10	12	Hodgeman	15(2600)	90	0.247	0.085	6	8	12	Breathitt
20	90	0.165	0.053	7	10	12	Jackson	15	90	0.350	0.130	6	8	12	Breckinridge
20	90	0.139	0.054	7	10	12	Jefferson	15	90	0.249	0.104	6	8	12	Bullitt
25	90	0.112	0.040	7	10	12	Jewell	15	90	0.397	0.144	6	8	12	Butler
20	90	0.127	0.058	7	10	12	Johnson	15	90	0.837	0.238	6	8	12	Caldwell
15	90	0.105	0.039	6	9	6/12	Kearny	15	90	1.001	0.270	6	8	12	Calloway
15	90	0.134	0.048	7	11	12	Kingman	20	90	0.185	0.076	5	7	12	Campbell
15	90	0.114	0.043	7	10	12	Kiowa	15	90	2.343	0.605	6	8	12	Carlisle
15	90	0.131	0.067	8	11	12	Labette	20	90	0.199	0.087	5	8	12	Carroll
20	90	0.098	0.038	7	9	12	Lane	20	90	0.208	0.074	5	8	12	Carter
20	90	0.129	0.055	7	10	12	Leavenworth	15(2600)	90	0.223	0.096	6	8	12	Casey
25	90	0.113	0.042	7	10	12	Lincoln	15	90	0.637	0.197	6	8	12	Christian
20	90	0.123	0.062	8	10	12	Linn	15	90	0.244	0.086	5	8	12	Clark
20	90	0.095	0.036	6	9	4/12	Logan	15(2600)	90	0.282	0.093	6	8	12	Clay
20	90	0.130	0.053	8	10	12	Lyon	15(2600)	90	0.244	0.101	6	8	12	Clinton
20	90	0.125	0.047	7	11	12	McPherson	15	90	0.932	0.257	6	8	12	Crittenden
20	90	0.131	0.049	7	11	12	Marion	15(2600)	90	0.242	0.103	6	8	12	Cumberland
20	90	0.181	0.049	7	10	12	Marshall	15	90	0.513	0.165	6	8	12	Daviess
15	90	0.112	0.042	7	10	12	Meade	15	90	0.317	0.125	6	8	12	Edmonson
20	90	0.124	0.059	7	10	12	Miami	15	90	0.224	0.078	5	8	12	Elliott
25	90	0.114	0.041	7	10	12	Mitchell	15(2600)	90	0.243	0.087	6	8	12	Estill
15	90	0.122	0.061	8	11	12	Montgomery	15	90	0.229	0.088	5	8	12	Fayette
20	90	0.154	0.052	7	10	12	Morris	15	90	0.242	0.080	5	8	12	Fleming
15	90	0.120	0.039	6	9	6	Morton	15(2600)	90	0.232	0.080	6	8	12	Floyd
20	90	0.173	0.050	7	10	12	Nemaha	15	90	0.215	0.089	5	8	12	Franklin
15	90	0.120	0.062	8	11	12	Neosho	15	90	1.668	0.600	7	8	12	Fulton
20	90	0.107	0.040	7	10	12	Ness	20	90	0.190	0.082	5	8	12	Gallatin
25	90	0.113	0.038	7	10	12	Norton	15(2600)	90	0.223	0.091	6	8	12	Garrard
20	90	0.131	0.054	7	10	12	Osage	20	90	0.202	0.081	5	8	12	Grant
25	90	0.110	0.040	7	10	12	Osborne	15	90	1.443	0.385	6	8	12	Graves
20	90	0.125	0.044	7	10	12	Ottawa	15	90	0.324	0.125	6	8	12	Grayson
20	90	0.110	0.042	7	10	12	Pawnee	15	90	0.239	0.104	6	8	12	Green
25	90	0.111	0.038	7	10	12	Phillips	20	90	0.194	0.071	5	8	12	Greenup
20	90	0.211	0.053	7	10	12	Pottawatomie	15	90	0.409	0.143	6	8	12	Hancock
15	90	0.124	0.045	7	10	12	Pratt	15	90	0.265	0.110	6	8	12	Hardin
25	90	0.093	0.034	6	9	4	Rawlins	15(2600)	90	0.361	0.099	6	8	12	Harlan
15	90	0.127	0.047	7	11	12	Reno	15	90	0.230	0.083	5	8	12	Harrison
25	90	0.132	0.043	7	10	12	Republic	15	90	0.270	0.113	6	8	12	Hart
20	90	0.117	0.044	7	10	12	Rice	15	90	0.675	0.198	6	8	12	Henderson
20	90	0.206	0.053	7	10	12	Riley	15	90	0.209	0.090	5	8	12	Henry
25	90	0.120	0.040	7	10	12	Rooks	15	90	1.500	0.577	6	8	12	Hickman
20	90	0.117	0.041	7	10	12	Rush	15	90	0.665	0.202	6	8	12	Hopkins
25	90	0.116	0.041	7	10	12	Russell	15(2600)	90	0.244	0.089	6	8	12	Jackson
20	90	0.126	0.045	7	10	12	Saline	15	90	0.247	0.102	6	8	12	Jefferson
20	90	0.097	0.038	7	9	6/12	Scott	15	90	0.225	0.089	6	8	12	Jessamine
15	90	0.135	0.051	8	11	12	Sedgwick	15(2600)	90	0.222	0.078	6	8	12	Johnson
15	90	0.115	0.041	7	9	12	Seward	20	90	0.184	0.077	5	7	12	Kenton
20	90	0.154	0.054	7	10	12	Shawnee	20(2500)	90	0.264	0.086	6	8	12	Knott
25	90	0.102	0.037	6	9	4/12	Sheridan	15(2600)	90	0.330	0.099	6	8	12	Knox
20	90	0.097	0.036	6	9	4	Sherman	15	90	0.255	0.108	6	8	12	Larue
25	90	0.106	0.039	7	10	12	Smith	15(2600)	90	0.266	0.093	6	8	12	Laurel
15	90	0.115	0.044	7	10	12	Stafford	15	90	0.205	0.074	5	8	12	Lawrence
15	90	0.114	0.038	6	9	6	Stanton	15(2600)	90	0.246	0.087	6	8	12	Lee
15	90	0.112	0.040	6	9	6/12	Stevens	15(2600)	90	0.291	0.091	6	8	12	Leslie
15	90	0.139	0.053	8	11	12	Sumner	20(2500)	90	0.297	0.090	6	8	12	Letcher
20	90	0.094	0.035	6	9	4/12	Thomas	15	90	0.212	0.074	5	8	12	Lewis
20	90	0.122	0.040	7	10	12	Trego	15(2600)	90	0.222	0.092	6	8	12	Lincoln
20	90	0.191	0.054	7	10	12	Wabaunsee	15	90	1.240	0.339	6	8	12	Livingston
20	90	0.102	0.037	6	9	4/6	Wallace	15	90	0.428	0.152	6	8	12	Logan
25	90	0.164	0.047	7	10	12	Washington	15	90	0.955	0.262	6	8	12	Lyon

S	W	S_s	S_1	I1	I2	T_L	County Name
15	90	1.500	0.466	6	8	12	McCracken
15(2600)	90	0.284	0.099	6	8	12	McCreary
15	90	0.565	0.178	6	8	12	McLean
15(2600)	90	0.233	0.088	6	8	12	Madison
15(2600)	90	0.231	0.081	6	8	12	Magoffin
15	90	0.225	0.098	6	8	12	Marion
15	90	1.149	0.313	6	8	12	Marshall
15(2600)	90	0.218	0.077	6	8	12	Martin
15	90	0.221	0.077	5	8	12	Mason
15	90	0.300	0.116	6	8	12	Meade
15	90	0.249	0.083	6	8	12	Menifee
15	90	0.218	0.092	6	8	12	Mercer
15	90	0.249	0.107	6	8	12	Metcalfe
15	90	0.256	0.108	6	8	12	Monroe
15	90	0.253	0.085	5	8	12	Montgomery
15	90	0.233	0.081	5	8	12	Morgan
15	90	0.532	0.174	6	8	12	Muhlenberg
15	90	0.234	0.101	6	8	12	Nelson
15	90	0.246	0.083	5	8	12	Nicholas
15	90	0.457	0.156	6	8	12	Ohio
15	90	0.217	0.093	5	8	12	Oldham
15	90	0.203	0.085	5	8	12	Owen
15(2600)	90	0.251	0.087	6	8	12	Owsley
20	90	0.206	0.080	5	8	12	Pendleton
20(2500)	90	0.277	0.089	6	8	12	Perry
20(2500)	90	0.256	0.083	6	8	12	Pike
15	90	0.248	0.086	6	8	12	Powell
15(2600)	90	0.239	0.095	6	8	12	Pulaski
15	90	0.229	0.080	5	8	12	Robertson
15(2600)	90	0.235	0.091	6	8	12	Rockcastle
15	90	0.240	0.080	5	8	12	Rowan
15(2600)	90	0.233	0.099	6	8	12	Russell
15	90	0.224	0.087	5	8	12	Scott
15	90	0.217	0.093	5	8	12	Shelby
15	90	0.350	0.135	6	8	12	Simpson
15	90	0.224	0.097	6	8	12	Spencer
15	90	0.230	0.101	6	8	12	Taylor
15	90	0.495	0.167	6	8	12	Todd
15	90	0.796	0.230	6	8	12	Trigg
20	90	0.207	0.090	5	8	12	Trimble
15	90	0.816	0.231	6	8	12	Union
15	90	0.342	0.132	6	8	12	Warren
15	90	0.223	0.097	6	8	12	Washington
15(2600)	90	0.244	0.098	6	8	12	Wayne
15	90	0.742	0.218	6	8	12	Webster
15(2600)	90	0.322	0.100	6	8	12	Whitley
15(2600)	90	0.245	0.084	6	8	12	Wolfe
15	90	0.220	0.089	6	8	12	Woodford
							LOUISIANA
0	105	0.106	0.048	11	12	12	Acadia
0	100	0.112	0.051	10	12	12	Allen
0	100	0.116	0.049	11	12	12	Ascension
0	**115**	0.112	0.047	11	12	12	Assumption
5	95	0.124	0.059	9	11	12	Avoyelles
5	98	0.119	0.052	10	12	12	Beauregard
5	90	0.172	0.077	8	11	12	Bienville
5	90	0.160	0.072	8	11	12	Bossier
5	90	0.154	0.069	8	11	12	Caddo
0	108	0.109	0.046	11	12	12	Calcasieu
5	90	0.162	0.075	9	11	12	Caldwell
0	**120**	0.097	0.042	11	13	12	Cameron
5	90	0.147	0.070	9	11	12	Catahoula
5	90	0.185	0.081	8	11	12	Claiborne
5	92	0.141	0.067	9	11	12	Concordia
5	90	0.143	0.064	9	11	12	De Soto
0	105	0.121	0.053	10	12	12	E. Baton Rouge
5	90	0.234	0.099	8	11	12	East Carroll
0	102	0.125	0.058	10	12	12	East Feliciana
0	98	0.114	0.053	10	12	12	Evangeline
5	90	0.170	0.078	9	11	12	Franklin
5	90	0.133	0.062	9	11	12	Grant
0	112	0.107	0.047	11	12	12	Iberia
0	108	0.119	0.051	11	12	12	Iberville
5	90	0.161	0.073	8	11	12	Jackson
0	**130**	0.108	0.047	12	13	12	Jefferson
0	105	0.105	0.047	11	12	12	Jefferson Davis
0	107	0.109	0.049	11	12	12	Lafayette
0	**130**	0.107	0.046	12	13	12	Lafourche
5	90	0.142	0.067	9	11	12	La Salle
5	90	0.178	0.079	8	11	12	Lincoln
0	108	0.121	0.054	10	12	12	Livingston
5	90	0.197	0.086	8	11	12	Madison
5	90	0.214	0.092	8	11	12	Morehouse
5	90	0.139	0.064	9	11	12	Natchitoches
0	**126**	0.110	0.048	11	13	12	Orleans
5	90	0.188	0.083	8	11	12	Ouachita
0	**146**	0.098	0.043	12	13	12	Plaquemines
0	102	0.121	0.055	10	12	12	Pointe Coupee
5	93	0.128	0.060	9	11	12	Rapides
5	90	0.144	0.066	9	11	12	Red River
5	90	0.192	0.085	8	11	12	Richland
5	90	0.138	0.060	9	11	12	Sabine
0	**140**	0.109	0.047	11	13	12	St. Bernard
0	**123**	0.111	0.048	11	13	12	St. Charles
0	103	0.125	0.058	10	12	12	St. Helena
0	115	0.114	0.048	11	12	12	St. James
0	115	0.114	0.049	11	12	12	St. John the Baptist
0	102	0.112	0.052	10	12	12	St. Landry
0	108	0.109	0.048	11	12	12	St. Martin
0	**120**	0.103	0.045	11	12	12	St. Mary
5	**115**	0.119	0.053	10	12	12	St. Tammany
0	107	0.123	0.056	10	12	12	Tangipahoa
5	90	0.160	0.074	9	11	12	Tensas
0	**130**	0.099	0.044	12	13	12	Terrebonne
5	90	0.204	0.088	8	11	12	Union
0	**120**	0.103	0.046	11	12	12	Vermilion
5	94	0.126	0.055	9	11	12	Vernon
0	108	0.125	0.058	10	12	12	Washington
5	90	0.167	0.075	8	11	12	Webster
0	105	0.121	0.053	10	12	12	W. Baton Rouge
5	90	0.236	0.099	8	11	12	West Carroll
0	100	0.122	0.056	10	12	12	West Feliciana
5	90	0.148	0.069	9	11	12	Winn
							MAINE
80(600)	92	0.323	0.080	4	6	6	Androscoggin
100(700)	90	0.253	0.080	4	6	6	Aroostook
70(500)	94	0.314	0.077	4	6	6	Cumberland
CS	90	0.301	0.081	4	6	6	Franklin
60(500)	91	0.227	0.068	4	6	6	Hancock
70(500)	91	0.292	0.077	4	6	6	Kennebec
50(500)	97	0.223	0.067	4	6	6	Knox
50(500)	97	0.267	0.073	4	6	6	Lincoln
90(700)	90	0.337	0.083	4	6	6	Oxford
90(700)	90	0.255	0.073	4	6	6	Penobscot
CS	90	0.280	0.080	4	6	6	Piscataquis
50(500)	99	0.278	0.074	4	6	6	Sagadahoc
CS	90	0.286	0.079	4	6	6	Somerset
70(500)	93	0.238	0.070	4	6	6	Waldo
70(500)	90	0.285	0.069	4	6	6	Washington
70(500)	96	0.354	0.081	4	6	6	York
							MARYLAND
CS	90	0.151	0.052	5	7	12	Allegany
25	90	0.155	0.049	7	10	6/8	Anne Arundel
25	90	0.177	0.051	7	9	6	Baltimore
25	90	0.142	0.049	8	10	8	Calvert
25	94	0.147	0.048	7	10	8	Caroline
30(900)	90	0.170	0.051	6	9	6/8	Carroll
25	90	0.235	0.056	7	9	6	Cecil
25	90	0.151	0.050	8	10	8	Charles
20	96	0.134	0.047	7	10	8	Dorchester
30(900)	90	0.161	0.051	6	9	6/8	Frederick
CS	90	0.141	0.053	5	7	12	Garrett
25	90	0.199	0.053	7	9	6	Harford
25	90	0.164	0.051	7	10	6/8	Howard
25	90	0.174	0.050	7	10	6	Kent
25	90	0.156	0.051	7	10	8	Montgomery
25	90	0.150	0.050	7	10	8	Prince George's
25	90	0.159	0.049	7	10	6/8	Queen Anne's
20	90	0.142	0.049	8	10	8	St. Mary's
20	110	0.116	0.044	7	11	8	Somerset
20	91	0.143	0.048	7	10	8	Talbot
CS	90	0.164	0.051	5	8	8/12	Washington
20	109	0.119	0.044	7	10	8	Wicomico
20	**115**	0.109	0.043	7	10	8	Worcester

S	W	S_s	S_1	I1	I2	T_L	County Name
							MASSACHUSETS
25	**115**	0.188	0.052	5	7	6	Barnstable
50(900)	90*	0.219	0.067	5	7	6	Berkshire
30	**110**	0.238	0.061	5	7	6	Bristol
25	**118**	0.168	0.049	5	7	6	Dukes
50(500)	104	0.310	0.071	5	7	6	Essex
50(900)	90*	0.225	0.068	5	7	6	Franklin
35	95	0.229	0.065	5	7	6	Hampden
40	93*	0.224	0.066	5	7	6	Hampshire
40	100	0.280	0.068	5	7	6	Middlesex
25	**118**	0.138	0.045	5	7	6	Nantucket
40	105	0.261	0.066	5	7	6	Norfolk
30	**112**	0.234	0.059	5	7	6	Plymouth
40	105	0.280	0.068	5	7	6	Suffolk
50(900)	97	0.237	0.066	5	7	6	Worcester
							MICHIGAN
50	90	0.073	0.033	4	6	12	Alcona
70	90	0.056	0.021	4	6	4/12	Alger
CS	90	0.100	0.046	5	7	12	Allegan
50	90	0.073	0.031	4	6	4/12	Alpena
60	90	0.058	0.030	4	6	12	Antrim
40	90	0.070	0.034	4	6	12	Arenac
70	90	0.067	0.019	4	6	4	Baraga
35	90	0.101	0.044	5	7	12	Barry
35	90	0.077	0.036	4	6	12	Bay
CS	90	0.059	0.031	4	6	12	Benzie
CS	90	0.112	0.051	5	7	12	Berrien
25	90	0.124	0.050	5	7	12	Branch
25	90	0.115	0.047	5	7	12	Calhoun
CS	90	0.114	0.052	5	7	12	Cass
60	90	0.057	0.029	4	6	12	Charlevoix
60	90	0.061	0.025	4	6	4/12	Cheboygan
70	90	0.063	0.025	4	6	4	Chippewa
40	90	0.066	0.034	4	6	12	Clare
30	90	0.093	0.041	5	7	12	Clinton
50	90	0.061	0.031	4	6	12	Crawford
60	90	0.058	0.026	4	6	4/12	Delta
60	90	0.058	0.026	4	6	4/12	Dickinson
30	90	0.107	0.044	5	7	12	Eaton
CS	90	0.058	0.029	4	6	12	Emmet
30	90	0.093	0.040	5	7	12	Genesee
40	90	0.068	0.034	4	6	12	Gladwin
60	90	0.060	0.018	4	6	4/12	Gogebic
60	90	0.058	0.030	4	6	12	Grand Traverse
35	90	0.083	0.038	5	7	12	Gratiot
20	90	0.127	0.050	5	7	12	Hillsdale
70	90	0.072	0.019	4	6	4	Houghton
35	90	0.080	0.036	4	6	12	Huron
25	90	0.107	0.044	5	7	12	Ingham
35	90	0.091	0.041	5	7	12	Ionia
40	90	0.071	0.034	4	6	12	Iosco
60	90	0.059	0.024	4	6	4/12	Iron
40	90	0.074	0.036	5	6	12	Isabella
25	90	0.118	0.046	5	7	12	Jackson
30	90	0.109	0.048	5	7	12	Kalamazoo
60	90	0.059	0.031	4	6	12	Kalkaska
35	90	0.088	0.042	5	7	12	Kent
90	90	0.070	0.019	4	6	12	Keweenaw
50	90	0.067	0.035	5	7	12	Lake
25	90	0.095	0.040	4	6	12	Lapeer
CS	90	0.057	0.029	4	6	12	Leelanau
20	90	0.138	0.049	5	7	12	Lenawee
25	90	0.106	0.043	5	7	12	Livingston
70	90	0.056	0.022	4	6	4	Luce
60	90	0.059	0.025	4	6	4/12	Mackinac
25	90	0.112	0.043	4	6	12	Macomb
60	90	0.063	0.033	4	6	12	Manistee
70	90	0.059	0.020	4	6	4/12	Marquette
CS	90	0.067	0.035	5	7	12	Mason
40	90	0.070	0.036	5	7	12	Mecosta
60	90	0.058	0.029	4	6	12	Menominee
35	90	0.075	0.036	4	6	12	Midland
50	90	0.062	0.032	4	6	12	Missaukee
20	90	0.146	0.049	5	7	12	Monroe
35	90	0.081	0.038	5	7	12	Montcalm
50	90	0.064	0.031	4	6	12	Montmorency
40	90	0.080	0.090	5	7	12	Muskegon
40	90	0.073	0.037	5	7	12	Newaygo
25	90	0.109	0.043	5	7	12	Oakland
CS	90	0.071	0.036	5	7	12	Oceana
40	90	0.066	0.033	4	6	12	Ogemaw
70	90	0.068	0.019	4	6	4	Ontonagon
50	90	0.067	0.035	4	6	12	Osceola
50	90	0.065	0.032	4	6	12	Oscoda
50	90	0.060	0.030	4	6	12	Otsego
40	90	0.085	0.041	5	7	12	Ottawa
50	90	0.068	0.028	4	6	4/12	Presque Isle
50	90	0.063	0.032	4	6	12	Roscommon
35	90	0.080	0.037	5	6	12	Saginaw
25	90	0.105	0.041	4	6	12	St. Clair
25	90	0.118	0.051	5	7	12	St. Joseph
30	90	0.089	0.038	4	6	12	Sanilac
70	90	0.056	0.023	4	6	4/12	Schoolcraft
30	90	0.093	0.040	5	7	12	Shiawassee
30	90	0.082	0.037	4	6	12	Tuscola
CS	90	0.108	0.049	5	7	12	Van Buren
20	90	0.122	0.046	5	7	12	Washtenaw
20	90	0.122	0.045	5	7	12	Wayne
60	90	0.063	0.033	4	6	12	Wexford
							MINNESOTA
60	90	0.069	0.019	5	7	4	Aitkin
50	90	0.063	0.026	6	8	12	Anoka
60	90	0.086	0.021	5	7	4	Becker
70	90	0.065	0.018	4	6	4	Beltrami
50	90	0.074	0.021	6	8	4	Benton
50	90	0.112	0.027	6	8	4	Big Stone
50	90	0.062	0.029	6	9	12	Blue Earth
50	90	0.068	0.029	6	9	12	Brown
60	90	0.056	0.018	5	7	4	Carlton
50	90	0.063	0.028	6	8	12	Carver
60	90	0.072	0.019	5	7	4	Cass
50	90	0.096	0.025	6	8	4	Chippewa
50	90	0.058	0.025	6	7	12	Chisago
60	90	0.075	0.021	5	7	4	Clay
70	90	0.065	0.018	4	7	4	Clearwater
60	90	0.059	0.016	4	6	4	Cook
50	90	0.072	0.030	6	9	12	Cottonwood
60	90	0.081	0.021	5	7	4	Crow Wing
50	90	0.057	0.028	6	8	12	Dakota
50	90	0.057	0.030	6	8	12	Dodge
50	90	0.110	0.024	5	8	4	Douglas
50	90	0.062	0.031	6	9	12	Faribault
40	90	0.060	0.033	6	8	12	Fillmore
50	90	0.059	0.032	6	9	12	Freeborn
50	90	0.056	0.029	6	8	12	Goodhue
50	90	0.112	0.025	5	8	4	Grant
50	90	0.061	0.027	6	8	12	Hennepin
40	90	0.063	0.034	6	8	12	Houston
60	90	0.081	0.020	5	7	4	Hubbard
50	90	0.063	0.022	6	7	12	Isanti
70	90	0.061	0.017	4	6	4	Itasca
40	90	0.070	0.031	6	9	12	Jackson
60	90	0.064	0.020	5	7	4	Kanabec
50	90	0.090	0.025	6	8	4/12	Kandiyohi
60	90	0.045	0.015	4	6	4	Kittson
70	90	0.047	0.014	4	6	4	Koochiching
50	90	0.102	0.026	6	8	4	Lac qui Parle
60	90	0.055	0.017	4	6	4	Lake
60	90	0.047	0.014	4	6	4	Lake of the Woods
50	90	0.061	0.029	6	8	12	Le Sueur
50	90	0.096	0.028	6	9	4/12	Lincoln
50	90	0.088	0.029	6	9	4/12	Lyon
50	90	0.069	0.028	6	8	12	McLeod
60	90	0.069	0.019	5	7	4	Mahnomen
60	90	0.052	0.017	4	6	4	Marshall
50	90	0.064	0.031	6	9	12	Martin
50	90	0.080	0.026	6	8	4/12	Meeker
60	90	0.070	0.020	5	7	4/12	Mille Lacs
60	90	0.087	0.022	5	8	4	Morrison
50	90	0.058	0.032	6	8	12	Mower
50	90	0.085	0.031	6	9	12	Murray
50	90	0.063	0.029	6	8	12	Nicollet

S	W	S_s	S_1	I1	I2	T_L	County Name
40	90	0.080	0.031	6	9	12	Nobles
60	90	0.067	0.019	5	7	4	Norman
50	90	0.057	0.031	6	8	12	Olmsted
60	90	0.101	0.024	5	8	4	Otter Tail
70	90	0.054	0.017	4	7	4	Pennington
60	90	0.061	0.021	5	7	4	Pine
50	90	0.100	0.032	6	9	12	Pipestone
60	90	0.058	0.018	4	7	4	Polk
50	90	0.108	0.025	6	8	4	Pope
50	90	0.059	0.027	6	8	12	Ramsey
60	90	0.057	0.017	4	7	4	Red Lake
50	90	0.079	0.029	6	9	12	Redwood
50	90	0.082	0.028	6	8	12	Renville
50	90	0.058	0.029	6	8	12	Rice
40	90	0.096	0.032	6	9	12	Rock
60	90	0.045	0.014	4	6	4	Roseau
60	90	0.056	0.017	4	6	4	St. Louis
50	90	0.060	0.028	6	8	12	Scott
50	90	0.066	0.025	6	8	12	Sherburne
50	90	0.067	0.028	6	8	12	Sibley
50	90	0.078	0.022	6	8	4	Stearns
50	90	0.058	0.030	6	8	12	Steele
50	90	0.117	0.026	6	8	4	Stevens
50	90	0.105	0.025	6	8	4	Swift
60	90	0.100	0.023	5	8	4	Todd
50	90	0.115	0.026	5	8	4	Traverse
50	90	0.056	0.030	6	8	12	Wabasha
60	90	0.098	0.022	5	7	4	Wadena
50	90	0.059	0.030	6	9	12	Waseca
50	90	0.058	0.027	6	8	12	Washington
50	90	0.067	0.030	6	9	12	Watonwan
50	90	0.096	0.024	5	8	4	Wilkin
50	90	0.059	0.032	6	8	12	Winona
50	90	0.069	0.026	6	8	12	Wright
50	90	0.090	0.026	6	9	4/12	Yellow Medicine
							MISSISSIPPI
5	93	0.141	0.067	9	11	12	Adams
10	90	0.502	0.170	7	9	12	Alcorn
0	98	0.130	0.062	9	11	12	Amite
5	90	0.247	0.104	8	10	12	Attala
10	90	0.621	0.195	7	9	12	Benton
10	90	0.453	0.154	8	10	12	Bolivar
10	90	0.387	0.142	7	10	12	Calhoun
10	90	0.338	0.128	8	10	12	Carroll
10	90	0.337	0.129	7	10	12	Chickasaw
10	90	0.263	0.109	7	10	12	Choctaw
5	91	0.166	0.076	9	11	12	Claiborne
5	103	0.184	0.076	9	11	12	Clarke
10	90	0.278	0.111	7	10	12	Clay
10	90	0.587	0.187	7	10	12	Coahoma
5	94	0.161	0.075	9	11	12	Copiah
5	101	0.150	0.070	9	11	12	Covington
10	90	0.875	0.252	7	10	12	De Soto
5	109	0.140	0.064	9	11	12	Forrest
0	95	0.140	0.067	9	11	12	Franklin
0	**123**	0.127	0.057	10	12	12	George
5	115	0.134	0.060	9	11	12	Greene
10	90	0.393	0.143	7	10	12	Grenada
5	**125**	0.118	0.051	10	12	12	Hancock
5	**130**	0.119	0.052	10	12	12	Harrison
5	90	0.191	0.084	8	11	12	Hinds
5	90	0.271	0.110	8	10	12	Holmes
5	90	0.296	0.115	8	11	12	Humphreys
5	90	0.250	0.103	8	11	12	Issaquena
10	90	0.341	0.130	7	10	12	Itawamba
0	**135**	0.111	0.050	10	12	12	Jackson
5	100	0.178	0.076	9	11	12	Jasper
5	93	0.150	0.071	9	11	12	Jefferson
5	100	0.147	0.069	9	11	12	Jefferson Davis
5	105	0.157	0.070	9	11	12	Jones
5	95	0.210	0.089	8	11	12	Kemper
10	90	0.533	0.176	7	10	12	Lafayette
5	107	0.135	0.062	9	11	12	Lamar
5	98	0.194	0.081	8	11	12	Lauderdale
0	97	0.145	0.069	9	11	12	Lawrence
5	92	0.213	0.094	8	11	12	Leake
10	90	0.369	0.138	7	10	12	Lee
10	90	0.352	0.131	8	10	12	Leflore
0	96	0.146	0.069	9	11	12	Lincoln
10	90	0.262	0.105	7	10	12	Lowndes
5	90	0.214	0.093	8	11	12	Madison
0	105	0.135	0.064	9	11	12	Marion
10	90	0.671	0.206	7	10	12	Marshall
10	90	0.297	0.116	7	10	12	Monroe
10	90	0.321	0.124	8	10	12	Montgomery
5	93	0.211	0.092	8	11	12	Neshoba
5	96	0.193	0.084	8	11	12	Newton
5	92	0.231	0.097	8	10	12	Noxubee
10	90	0.266	0.109	7	10	12	Oktibbeha
10	90	0.642	0.200	7	10	12	Panola
5	115	0.129	0.058	10	12	12	Pearl River
5	112	0.137	0.062	9	11	12	Perry
0	101	0.131	0.062	9	11	12	Pike
10	90	0.408	0.147	7	10	12	Pontotoc
10	90	0.439	0.154	7	9	12	Prentiss
10	90	0.603	0.191	7	10	12	Quitman
5	94	0.188	0.083	8	11	12	Rankin
5	94	0.189	0.084	8	11	12	Scott
5	90	0.253	0.104	8	11	12	Sharkey
5	96	0.166	0.076	9	11	12	Simpson
5	97	0.171	0.077	9	11	12	Smith
5	**120**	0.130	0.058	10	12	12	Stone
10	90	0.351	0.129	8	10	12	Sunflower
10	90	0.492	0.165	7	10	12	Tallahatchie
10	90	0.730	0.221	7	10	12	Tate
10	90	0.527	0.175	7	9	12	Tippah
10	90	0.417	0.150	7	9	12	Tishomingo
10	90	0.851	0.248	7	10	12	Tunica
10	90	0.469	0.161	7	10	12	Union
0	104	0.131	0.062	9	11	12	Walthall
5	90	0.197	0.086	8	11	12	Warren
10	90	0.339	0.126	8	11	12	Washington
5	107	0.163	0.069	9	11	12	Wayne
10	90	0.315	0.122	7	10	12	Webster
0	97	0.128	0.061	9	11	12	Wilkinson
5	92	0.239	0.102	8	10	12	Winston
10	90	0.480	0.163	7	10	12	Yalobusha
5	90	0.244	0.102	8	11	12	Yazoo
							MISSOURI
20	90	0.120	0.064	7	10	12	Adair
20	90	0.115	0.051	7	10	12	Andrew
20	90	0.128	0.047	7	10	12	Atchison
20	90	0.207	0.091	7	9	12	Audrain
15	90	0.204	0.091	8	11	12	Barry
15	90	0.148	0.074	8	11	12	Barton
20	90	0.131	0.066	7	10	12	Bates
20	90	0.168	0.079	7	10	12	Benton
15	90	1.104	0.306	7	9	12	Bollinger
20	90	0.195	0.087	7	10	12	Boone
20	90	0.119	0.052	7	10	12	Buchanan
15	90	1.120	0.309	7	9	12	Butler
20	90	0.114	0.058	7	10	12	Caldwell
20	90	0.228	0.098	7	10	12	Callaway
20	90	0.224	0.097	7	10	12	Camden
15	90	1.420	0.385	6	9	12	Cape Girardeau
20	90	0.127	0.065	7	10	12	Carroll
15	90	0.714	0.210	7	10	12	Carter
20	90	0.128	0.063	7	10	12	Cass
20	90	0.163	0.078	7	10	12	Cedar
20	90	0.139	0.070	7	10	12	Chariton
15	90	0.241	0.102	8	10	12	Christian
20	90	0.137	0.069	6	9	12	Clark
20	90	0.125	0.059	7	10	12	Clay
20	90	0.118	0.056	7	10	12	Clinton
20	90	0.232	0.099	7	10	12	Cole
20	90	0.170	0.080	7	10	12	Cooper
20	90	0.427	0.145	7	9	12	Crawford
20	90	0.173	0.082	8	11	12	Dade
20	90	0.211	0.093	7	10	12	Dallas
20	90	0.106	0.055	7	10	12	Daviess
20	90	0.109	0.053	7	10	12	Dekalb
20	90	0.437	0.149	7	10	12	Dent
15	90	0.305	0.119	7	10	12	Douglas
10	90	1.671	0.600	7	9	12	Dunklin
20	90	0.425	0.141	7	9	12	Franklin
20	90	0.299	0.114	7	9	12	Gasconade

S	W	S_s	S_1	I1	I2	T_L	County Name
20	90	0.100	0.051	7	10	12	Gentry
20	90	0.221	0.096	8	10	12	Greene
20	90	0.104	0.056	7	10	12	Grundy
20	90	0.098	0.052	7	10	12	Harrison
20	90	0.145	0.072	7	10	12	Henry
20	90	0.183	0.084	7	10	12	Hickory
20	90	0.124	0.050	7	10	12	Holt
20	90	0.163	0.078	7	10	12	Howard
15	90	0.481	0.161	7	10	12	Howell
20	90	0.710	0.208	7	9	12	Iron
20	90	0.127	0.060	7	10	12	Jackson
15	90	0.156	0.077	8	11	12	Jasper
20	90	0.595	0.175	6	9	12	Jefferson
20	90	0.137	0.069	7	10	12	Johnson
20	90	0.134	0.068	7	9	12	Knox
20	90	0.248	0.103	7	10	12	Laclede
20	90	0.126	0.063	7	10	12	Lafayette
15	90	0.189	0.086	8	11	12	Lawrence
20	90	0.154	0.074	6	9	12	Lewis
20	90	0.323	0.119	6	9	12	Lincoln
20	90	0.116	0.062	7	10	12	Linn
20	90	0.112	0.060	7	10	12	Livingston
15	90	0.173	0.081	8	11	12	McDonald
20	90	0.142	0.071	7	10	12	Macon
15	90	0.814	0.232	7	9	12	Madison
20	90	0.292	0.114	7	10	12	Maries
20	90	0.184	0.083	6	9	12	Marion
20	90	0.097	0.053	7	10	12	Mercer
20	90	0.234	0.099	7	10	12	Miller
15	90	3.369	1.261	6	9	12	Mississippi
20	90	0.201	0.089	7	10	12	Moniteau
20	90	0.179	0.083	7	9	12	Monroe
20	90	0.257	0.105	7	9	12	Montgomery
20	90	0.194	0.087	7	10	12	Morgan
15	90	3.342	1.283	7	9	12	New Madrid
15	90	0.164	0.079	8	11	12	Newton
20	90	0.109	0.048	7	10	12	Nodaway
15	90	0.624	0.190	7	10	12	Oregon
20	90	0.272	0.109	7	10	12	Osage
15	90	0.381	0.140	7	10	12	Ozark
10	90	3.300	1.132	7	9	12	Pemiscot
15	90	0.914	0.253	6	9	12	Perry
20	90	0.158	0.076	7	10	12	Pettis
20	90	0.341	0.127	7	10	12	Phelps
20	90	0.243	0.101	6	9	12	Pike
20	90	0.126	0.056	7	10	12	Platte
20	90	0.190	0.086	7	10	12	Polk
20	90	0.293	0.114	7	10	12	Pulaski
20	90	0.102	0.057	7	10	12	Putnam
20	90	0.207	0.090	6	9	12	Ralls
20	90	0.154	0.075	7	10	12	Randolph
20	90	0.123	0.062	7	10	12	Ray
15	90	0.652	0.194	7	9	12	Reynolds
15	90	0.827	0.235	7	10	12	Ripley
20	90	0.471	0.147	6	9	12	St. Charles
20	90	0.157	0.076	7	10	12	St. Clair
20	90	0.790	0.223	6	9	12	Ste. Genevieve
20	90	0.729	0.211	7	9	12	St. Francois
20	90	0.550	0.162	6	9	12	St. Louis
20	90	0.143	0.071	7	10	12	Saline
20	90	0.110	0.060	7	9	12	Schuyler
20	90	0.121	0.064	7	9	12	Scotland
15	90	1.929	0.600	6	9	12	Scott
15	90	0.566	0.177	7	10	12	Shannon
20	90	0.157	0.076	7	9	12	Shelby
15	90	1.504	0.600	7	9	12	Stoddard
15	90	0.232	0.099	8	11	12	Stone
20	90	0.107	0.059	7	10	12	Sullivan
15	90	0.278	0.111	8	10	12	Taney
20	90	0.374	0.136	7	10	12	Texas
20	90	0.137	0.069	8	10	12	Vernon
20	90	0.328	0.120	7	9	12	Warren
20	90	0.585	0.177	7	9	12	Washington
15	90	0.914	0.255	7	9	12	Wayne
20	90	0.245	0.102	7	10	12	Webster
20	90	0.097	0.049	7	10	12	Worth
20	90	0.292	0.114	7	10	12	Wright

S	W	S_s	S_1	I1	I2	T_L	County Name
							MONTANA
10(5000)	90*	0.725	0.220	4	6	6	Beaverhead
25(4800)	90	0.147	0.043	4	6	4/6	Big Horn
6	90	0.092	0.027	4	6	4	Blaine
6	90	0.903	0.270	4	6	6	Broadwater
25(4100)	90	0.277	0.097	4	6	4/6	Carbon
30(3700)	90	0.100	0.035	4	6	4	Carter
15(3400)	90*	0.215	0.079	4	6	6	Cascade
CS	90*	0.141	0.053	4	6	4/6	Chouteau
25(3000)	90	0.100	0.034	4	6	4	Custer
25(3000)	90	0.183	0.033	4	6	4	Daniels
25(3000)	90	0.088	0.030	4	6	4	Dawson
CS	90	0.396	0.131	4	6	6	Deer Lodge
30(3700)	90	0.085	0.031	4	6	4	Fallon
CS	90	0.119	0.049	4	6	4	Fergus
CS	90*	0.908	0.275	4	6	6	Flathead
CS	90	0.746	0.230	4	6	6	Gallatin
25(3000)	90	0.085	0.030	4	6	4	Garfield
CS	90	0.347	0.086	4	6	6	Glacier
25(4100)	90	0.139	0.060	4	6	4/6	Golden Valley
CS	90	0.404	0.128	4	6	6	Granite
CS	90	0.100	0.028	4	6	4/6	Hill
CS	90	0.724	0.216	4	6	6	Jefferson
CS	90	0.167	0.065	4	6	4/6	Judith Basin
CS	90*	0.992	0.319	4	6	6	Lake
CS	90	0.701	0.207	4	6	6	Lewis and Clark
CS	90*	0.176	0.046	4	6	6	Liberty
CS	90*	0.409	0.126	4	6	6	Lincoln
30(2600)	90	0.097	0.030	4	6	4	McCone
CS	90*	0.891	0.279	4	6	6	Madison
CS	90	0.620	0.180	4	6	6	Meagher
CS	90*	0.407	0.132	4	6	6	Mineral
20(3300)	90*	0.528	0.162	4	6	6	Missoula
25(4100)	90	0.108	0.042	4	6	4	Musselshell
CS	90	0.621	0.198	4	6	6	Park
25(3000)	90	0.091	0.033	4	6	4	Petroleum
CS	90	0.083	0.027	4	6	4	Phillips
CS	90*	0.249	0.078	4	6	6	Pondera
30(3700)	90	0.149	0.042	4	6	4	Powder River
CS	90	0.492	0.152	4	6	6	Powell
25(3000)	90	0.089	0.031	4	6	4	Prairie
CS	90*	0.312	0.104	4	6	6	Ravalli
25(3000)	90	0.109	0.029	4	6	4	Richland
30(2600)	90	0.126	0.031	4	6	4	Roosevelt
20(3600)	90	0.114	0.036	4	6	4	Rosebud
CS	90*	0.499	0.148	4	6	6	Sanders
30(2600)	90	0.228	0.037	4	6	4	Sheridan
CS	90	0.517	0.162	4	6	6	Silver Bow
25(4100)	90	0.190	0.079	4	6	4/6	Stillwater
25(4100)	90	0.285	0.108	4	6	6	Sweet Grass
15(3400)	90	0.307	0.101	4	6	6	Teton
15(3400)	90*	0.276	0.070	4	6	6	Toole
20(3600)	90	0.114	0.036	4	6	4	Treasure
25(3000)	90	0.096	0.028	4	6	4	Valley
CS	90	0.188	0.076	4	6	4/6	Wheatland
30(3700)	90	0.083	0.029	4	6	4	Wibaux
20(3600)	90	0.139	0.052	4	6	4/6	Yellowstone
							NEBRASKA
25	90	0.117	0.039	7	10	12	Adams
30	90	0.135	0.038	7	10	12	Antelope
25	90	0.101	0.036	5	8	4	Arthur
20	90	0.135	0.045	5	7	4	Banner
25	90	0.115	0.034	6	9	4	Blaine
25	90	0.137	0.039	7	10	12	Boone
20	90	0.133	0.042	5	7	4	Box Butte
35	90	0.157	0.036	6	9	4/12	Boyd
30	90	0.135	0.036	6	9	4	Brown
25	90	0.108	0.037	7	10	12	Buffalo
25	90	0.112	0.039	7	10	12	Burt
25	90	0.172	0.043	7	10	12	Butler
25	90	0.127	0.043	7	10	12	Cass
35	90	0.137	0.038	7	10	12	Cedar
25	90	0.087	0.034	5	9	4	Chase
30	90	0.140	0.037	5	8	4	Cherry
20	90	0.105	0.039	5	8	4	Cheyenne
25	90	0.126	0.040	7	10	12	Clay

S	W	S_s	S_1	I1	I2	T_L	County Name
25	90	0.160	0.042	7	10	12	Colfax
25	90	0.127	0.039	7	10	12	Cuming
25	90	0.110	0.034	6	9	4/12	Custer
30	90	0.102	0.036	7	10	12	Dakota
20	90	0.184	0.046	5	7	4	Dawes
25	90	0.101	0.035	6	10	4/12	Dawson
25	90	0.096	0.037	5	8	4	Deuel
30	90	0.111	0.036	7	10	12	Dixon
25	90	0.143	0.042	7	10	12	Dodge
25	90	0.121	0.042	7	10	12	Douglas
25	90	0.089	0.034	5	9	4	Dundy
25	90	0.147	0.043	7	10	12	Fillmore
25	90	0.104	0.038	7	10	12	Franklin
25	90	0.097	0.033	6	9	4/12	Frontier
25	90	0.107	0.037	7	10	12	Furnas
25	90	0.168	0.047	7	10	12	Gage
20	90	0.100	0.037	5	8	4	Garden
25	90	0.130	0.036	6	10	4/12	Garfield
25	90	0.100	0.035	7	10	12	Gosper
25	90	0.119	0.037	5	8	4	Grant
25	90	0.141	0.039	7	10	12	Greeley
25	90	0.130	0.039	7	10	12	Hall
25	90	0.137	0.040	7	10	12	Hamilton
25	90	0.106	0.037	7	10	12	Harlan
25	90	0.089	0.033	6	9	4	Hayes
25	90	0.091	0.034	6	9	4	Hitchcock
35	90	0.139	0.036	6	9	4/12	Holt
25	90	0.115	0.036	5	9	4	Hooker
25	90	0.138	0.039	7	10	12	Howard
25	90	0.156	0.045	7	10	12	Jefferson
25	90	0.158	0.047	7	10	12	Johnson
25	90	0.106	0.037	7	10	12	Kearney
25	90	0.091	0.035	5	9	4	Keith
30	90	0.142	0.036	6	9	4	Keya Paha
20	90	0.126	0.044	5	7	4	Kimball
35	90	0.150	0.038	7	10	12	Knox
25	90	0.177	0.046	7	10	12	Lancaster
25	90	0.092	0.033	6	9	4	Lincoln
25	90	0.099	0.033	6	9	4	Logan
25	90	0.123	0.035	6	9	4/12	Loup
25	90	0.098	0.034	5	9	4	McPherson
25	90	0.138	0.039	7	10	12	Madison
25	90	0.142	0.040	7	10	12	Merrick
20	90	0.119	0.041	5	8	4	Morrill
25	90	0.142	0.040	7	10	12	Nance
20	90	0.142	0.047	7	10	12	Nemaha
25	90	0.119	0.040	7	10	12	Nuckolls
25	90	0.135	0.045	7	10	12	Otoe
20	90	0.164	0.048	7	10	12	Pawnee
25	90	0.088	0.035	5	10	4	Perkins
25	90	0.102	0.036	7	10	12	Phelps
30	90	0.135	0.038	7	10	12	Pierce
25	90	0.157	0.041	7	10	12	Platte
25	90	0.161	0.042	7	10	12	Polk
25	90	0.098	0.034	6	9	4/12	Red Willow
20	90	0.141	0.049	7	10	12	Richardson
30	90	0.137	0.035	6	9	4	Rock
25	90	0.171	0.046	7	10	12	Saline
25	90	0.131	0.043	7	10	12	Sarpy
25	90	0.164	0.044	7	10	12	Saunders
20(4500)	90	0.141	0.045	4	7	4	Scotts Bluff
25	90	0.182	0.045	7	10	12	Seward
20	90	0.170	0.043	5	7	4	Sheridan
25	90	0.131	0.038	7	10	12	Sherman
15(5500)	90	0.195	0.051	4	7	4	Sioux
25	90	0.134	0.039	7	10	12	Stanton
25	90	0.137	0.043	7	10	12	Thayer
25	90	0.112	0.035	6	9	4	Thomas
25	90	0.117	0.038	7	10	12	Thurston
25	90	0.137	0.038	7	10	12	Valley
25	90	0.118	0.040	7	10	12	Washington
25	90	0.125	0.038	7	10	12	Wayne
25	90	0.108	0.039	7	10	12	Webster
25	90	0.136	0.038	7	10	12	Wheeler
25	90	0.158	0.043	7	10	12	York
							NEVADA
5(4000)	90	0.807	0.288	4	6	6	Churchill
0(3000)	90	0.570	0.176	4	6	6/8	Clark
CS	90	1.593	0.723	4	6	6	Douglas
20(5400)	90	0.495	0.167	4	6	6/8	Elko
5(4000)	90	0.746	0.251	4	6	6/8	Esmeralda
CS	90	0.565	0.182	4	6	6	Eureka
5(4000)	90	0.671	0.218	4	6	6/8/16	Humboldt
5(4000)	90	0.694	0.231	4	6	6	Lander
0(2000)	90	0.449	0.139	4	6	6	Lincoln
5(4000)	90	1.237	0.474	4	6	6	Lyon
5(4000)	90	1.438	0.561	4	6	6	Mineral
5(4000)	90*	0.668	0.226	4	6	6/8	Nye
5(4000)	90	0.592	0.214	4	6	6	Pershing
5(4000)	90	1.387	0.524	4	6	6	Storey
15(4400)	90*	1.500	0.601	4	6	6/16	Washoe
15(6400)	90	0.371	0.118	4	6	6	White Pine
							NEW HAMPSHIRE
80(600)	90	0.398	0.087	4	6	6	Belknap
90(700)	90	0.386	0.086	4	6	6	Carroll
CS	90*	0.257	0.073	4	6	6	Cheshire
CS	90*	0.310	0.086	4	6	6	Coos
CS	90*	0.321	0.086	4	6	6	Grafton
60(500)	93	0.315	0.075	4	6	6	Hillsborough
70(500)	90	0.370	0.083	4	6	6	Merrimack
50(500)	97	0.359	0.079	4	6	6	Rockingham
60(500)	95	0.364	0.081	4	6	6	Strafford
CS	90*	0.306	0.080	4	6	6	Sullivan
							NEW JERSEY
20	**110**	0.185	0.050	7	9	6	Atlantic
25	100	0.365	0.071	6	8	6	Bergen
20	100	0.264	0.059	6	9	6	Burlington
20	94	0.265	0.059	6	9	6	Camden
20	**112**	0.147	0.046	7	9	6	Cape May
20	100	0.204	0.052	7	9	6	Cumberland
25	100	0.362	0.070	6	8	6	Essex
20	94	0.259	0.058	6	9	6	Gloucester
25	102	0.362	0.070	6	8	6	Hudson
CS	90	0.302	0.065	6	8	6	Hunterdon
30	95	0.291	0.062	6	8	6	Mercer
25	99	0.331	0.067	6	8	6	Middlesex
25	**109**	0.301	0.063	6	8	6	Monmouth
CS	90	0.340	0.069	6	8	6	Morris
20	**110**	0.237	0.056	6	9	6	Ocean
30	92	0.361	0.071	6	8	6	Passaic
20	91	0.234	0.055	7	9	6	Salem
30	91	0.326	0.067	6	8	6	Somerset
CS	90	0.285	0.065	6	8	6	Sussex
25	99	0.357	0.070	6	8	6	Union
CS	90	0.270	0.063	6	8	6	Warren
							NEW MEXICO
5(5000)	90*	0.564	0.170	4	6	6	Bernalillo
5(5000)	90	0.269	0.080	4	6	6	Catron
5(3200)	90	0.119	0.041	4	7	6	Chaves
5(5000)	90	0.350	0.098	4	6	6	Cibola
CS	90	0.216	0.064	4	7	6	Colfax
15	90	0.115	0.035	5	8	6	Curry
5(3200)	90	0.117	0.039	4	7	6	De Baca
0(3500)	90	0.307	0.099	4	6	6	Dona Ana
5(3200)	90	0.174	0.047	4	7	6	Eddy
5(5000)	90	0.272	0.081	4	6	6	Grant
15(4800)	90*	0.153	0.052	4	7	6	Guadalupe
10(5000)	90	0.159	0.047	5	8	6	Harding
10(5000)	90	0.269	0.079	4	6	6	Hidalgo
5(3200)	90	0.177	0.038	5	8	6	Lea
CS	90*	0.276	0.087	4	6	6	Lincoln
CS	90*	0.492	0.159	4	6	6	Los Alamos
0(3500)	90	0.257	0.079	4	6	6	Luna
5(5000)	90	0.251	0.058	4	6	4/6	McKinley
10(5000)	90	0.303	0.097	4	7	6	Mora
0(3500)	90*	0.319	0.100	4	6	6	Otero
15(4800)	90	0.165	0.042	5	8	6	Quay
CS	90*	0.281	0.092	4	6	4/6	Rio Arriba
5(3200)	90	0.108	0.034	5	8	6	Roosevelt
CS	90	0.553	0.170	4	6	4/6	Sandoval
5(5000)	90	0.170	0.054	4	6	4	San Juan
10(5000)	90*	0.280	0.087	4	7	6	San Miguel
CS	90*	0.424	0.136	4	6	6	Santa Fe
5(5000)	90	0.281	0.089	4	6	6	Sierra
15(6000)	90	0.497	0.141	4	6	6	Socorro

S	W	S_s	S_1	I1	I2	T_L	County Name
CS	90	0.373	0.119	4	7	6	Taos
10(5000)	90*	0.359	0.112	4	6	6	Torrance
10(5000)	90	0.151	0.042	5	8	6	Union
5(5000)	90	0.581	0.170	4	6	6	Valencia
							NEW YORK
40	90	0.229	0.069	5	7	6	Albany
CS	90	0.171	0.052	4	6	6	Allegany
25	102	0.359	0.070	4	6	6	Bronx
CS	90	0.166	0.056	4	6	6	Broome
CS	90	0.177	0.050	4	6	6	Cattaraugus
40(1000)	90	0.173	0.058	4	6	6	Cayuga
CS	90	0.165	0.049	4	6	6/12	Chautauqua
CS	90	0.153	0.053	4	6	6	Chemung
CS	90	0.176	0.060	4	6	6	Chenango
50(700)	90	0.476	0.108	4	6	6	Clinton
35	90*	0.222	0.066	5	7	6	Columbia
CS	90	0.164	0.057	4	6	6	Cortland
CS	90	0.193	0.062	5	7	6	Delaware
35	90*	0.258	0.066	5	8	6	Dutchess
CS	90	0.275	0.058	4	6	6	Erie
CS	90	0.385	0.096	4	6	6	Essex
CS	90	0.628	0.126	4	6	6	Franklin
50(700)	90	0.246	0.071	4	6	6	Fulton
CS	90	0.266	0.060	4	6	6	Genesee
CS	90	0.221	0.065	5	7	6	Greene
CS	90	0.303	0.080	4	6	6	Hamilton
CS	90	0.221	0.068	4	6	6	Herkimer
CS	90	0.246	0.074	4	6	6	Jefferson
20	**108**	0.351	0.069	6	8	6	Kings
CS	90	0.269	0.076	4	6	6	Lewis
CS	90	0.223	0.057	4	6	6	Livingston
CS	90	0.193	0.064	4	6	6	Madison
40(1000)	90	0.206	0.058	4	6	6	Monroe
40	90	0.242	0.071	4	6	6	Montgomery
25	**112**	0.327	0.067	6	8	6	Nassau
20	102	0.360	0.070	6	6	6	New York
CS	90	0.280	0.059	4	6	6	Niagara
CS	90	0.216	0.068	4	6	6	Oneida
CS	90	0.180	0.061	4	6	6	Onondaga
35(1000)	90	0.187	0.057	4	6	6	Ontario
CS	90*	0.285	0.067	5	8	6	Orange
CS	90	0.247	0.059	4	6	6	Orleans
CS	90	0.185	0.062	4	6	6	Oswego
CS	90	0.205	0.065	4	6	6	Otsego
30	92*	0.296	0.068	5	8	6	Putnam
20	110	0.344	0.068	6	8	6	Queens
40	90*	0.232	0.069	5	7	6	Rensselaer
20	102	0.355	0.069	4	8	6	Richmond
30	93*	0.347	0.071	6	8	6	Rockland
CS	90	0.480	0.105	4	6	6	St. Lawrence
50(700)	90	0.250	0.073	4	6	6	Saratoga
40	90	0.238	0.070	4	6	6	Schenectady
CS	90	0.226	0.068	5	7	6	Schoharie
35(1000)	90	0.159	0.054	4	6	6	Schuyler
35(1000)	90	0.167	0.056	4	6	6	Seneca
35(1000)	90	0.164	0.053	4	6	6	Steuben
30	**116**	0.200	0.055	6	8	6	Suffolk
CS	90	0.224	0.062	5	8	6	Sullivan
CS	90	0.159	0.055	4	6	6	Tioga
CS	90	0.159	0.055	4	6	6	Tompkins
CS	90*	0.232	0.065	5	8	6	Ulster
CS	90	0.287	0.079	4	6	6	Warren
40	90	0.269	0.077	4	6	6	Washington
40(1000)	90	0.179	0.058	4	6	6	Wayne
30	96*	0.350	0.070	6	8	6	Westchester
CS	90	0.242	0.058	4	6	6	Wyoming
35(1000)	90	0.172	0.056	4	6	6	Yates
							NORTH CAROLINA
15	90	0.208	0.081	7	10	8	Alamance
15	90	0.273	0.093	6	9	8	Alexander
20(2500)	90*	0.295	0.089	6	8	12	Alleghany
10	93	0.369	0.117	7	10	8	Anson
20(2500)	90*	0.316	0.093	6	8	12	Ashe
15(2600)	90*	0.350	0.099	6	9	12	Avery
10	**109**	0.149	0.062	9	11	8	Beaufort
10	**100**	0.137	0.057	8	11	8	Bertie
10	108	0.338	0.110	8	11	8	Bladen
10	**131**	0.320	0.104	9	11	8	Brunswick
15(2600)	90*	0.392	0.106	6	9	12	Buncombe
15(2600)	90	0.311	0.099	6	9	8/12	Burke
10	90	0.292	0.101	6	9	8	Cabarrus
15(2600)	90	0.301	0.096	6	9	8/12	Caldwell
10	**109**	0.114	0.049	8	11	8	Camden
10	**132**	0.148	0.062	9	11	8	Carteret
20	90	0.195	0.076	7	10	8	Caswell
15	90	0.282	0.097	6	9	8	Catawba
15	90	0.225	0.086	7	10	8	Chatham
10(1800)	90*	0.444	0.111	7	9	12	Cherokee
10	103	0.127	0.054	8	11	8	Chowan
10(1800)	90	0.413	0.108	7	9	12	Clay
15	90	0.317	0.103	6	9	8	Cleveland
10	**114**	0.411	0.126	9	11	8	Columbus
10	**115**	0.162	0.065	9	11	8	Craven
10	98	0.297	0.101	8	11	8	Cumberland
10	**114**	0.109	0.047	8	11	8	Currituck
10	**123**	0.097	0.045	9	11	8	Dare
15	90	0.244	0.090	6	9	8	Davidson
15	90	0.249	0.091	6	9	8	Davie
10	**109**	0.230	0.084	9	11	8	Duplin
15	90	0.198	0.078	7	10	8	Durham
15	96	0.157	0.065	8	11	8	Edgecombe
15	90	0.231	0.086	6	9	8	Forsyth
15	92	0.176	0.071	8	11	8	Franklin
10	90	0.314	0.104	6	9	8	Gaston
10	99	0.130	0.053	8	11	8	Gates
10(1800)	90*	0.476	0.114	7	9	12	Graham
15	90	0.179	0.071	7	10	8	Granville
10	102	0.180	0.071	9	11	8	Greene
15	90	0.218	0.083	7	10	8	Guilford
15	93	0.153	0.062	8	11	8	Halifax
15	95	0.243	0.090	8	11	8	Harnett
15(2600)	90*	0.422	0.109	7	9	12	Haywood
15(2600)	90	0.367	0.105	7	9	8/12	Henderson
10	95	0.135	0.055	8	11	8	Hertford
10	96	0.334	0.110	8	11	8	Hoke
10	**121**	0.124	0.053	9	11	8	Hyde
15	90	0.264	0.094	6	9	8	Iredell
15(2600)	90*	0.432	0.110	7	9	12	Jackson
15	96	0.209	0.080	8	11	8	Johnston
10	**115**	0.181	0.071	9	11	8	Jones
15	92	0.251	0.092	7	10	8	Lee
10	106	0.185	0.072	9	11	8	Lenoir
15	90	0.295	0.100	6	9	8	Lincoln
15(2600)	90	0.342	0.102	6	9	8/12	McDowell
15(2600)	90*	0.414	0.109	7	9	12	Macon
15(2600)	90*	0.417	0.108	6	9	12	Madison
10	102	0.142	0.059	9	11	8	Martin
10	90	0.317	0.106	6	9	8	Mecklenburg
15(2600)	90*	0.373	0.102	6	9	12	Mitchell
10	90	0.292	0.101	7	10	8	Montgomery
10	93	0.280	0.099	7	10	8	Moore
15	94	0.169	0.069	8	11	8	Nash
10	**129**	0.297	0.098	9	11	8	New Hanover
15	92	0.148	0.060	8	11	8	Northampton
10	**122**	0.201	0.075	9	11	8	Onslow
15	90	0.200	0.078	7	10	8	Orange
10	**121**	0.148	0.061	9	11	8	Pamlico
10	**108**	0.116	0.049	8	11	8	Pasquotank
10	**120**	0.265	0.091	9	11	8	Pender
10	105	0.123	0.052	8	11	8	Perquimans
20	90	0.186	0.073	7	10	8	Person
10	103	0.159	0.065	9	11	8	Pitt
15(2600)	90	0.346	0.104	7	9	8	Polk
15	90	0.244	0.091	7	10	8	Randolph
10	94	0.372	0.118	7	10	8	Richmond
10	103	0.399	0.124	8	11	8	Robeson
20	90	0.209	0.079	7	9	8	Rockingham
15	90	0.262	0.095	6	9	8	Rowan
15(2600)	90	0.332	0.103	6	9	8	Rutherford
10	102	0.257	0.092	8	11	8	Sampson
10	97	0.405	0.125	8	10	8	Scotland
10	90	0.298	0.103	7	10	8	Stanly
20	90	0.230	0.082	6	9	8/12	Stokes

S	W	S_s	S_1	I1	I2	T_L	County Name
20(2500)	90	0.260	0.086	6	9	8/12	Surry
10(1800)	90*	0.461	0.113	7	9	12	Swain
15(2600)	90	0.383	0.106	7	9	12	Transylvania
10	**115**	0.117	0.051	9	11	8	Tyrrell
10	90	0.361	0.115	7	10	8	Union
15	90	0.174	0.069	8	10	8	Vance
15	93	0.203	0.079	8	11	8	Wake
15	90	0.167	0.067	8	11	8	Warren
10	107	0.133	0.056	9	11	8	Washington
20(2500)	90*	0.327	0.096	6	9	12	Watauga
10	101	0.200	0.077	8	11	8	Wayne
20(2500)	90	0.275	0.091	6	9	8/12	Wilkes
15	97	0.177	0.071	8	11	8	Wilson
15	90	0.247	0.088	6	9	8	Yadkin
15(2600)	90*	0.383	0.104	6	9	12	Yancey
							NORTH DAKOTA
CS	90	0.077	0.029	4	7	4	Adams
40	90	0.065	0.021	5	7	4	Barnes
40	90	0.052	0.019	4	6	4	Benson
30(2600)	90	0.078	0.028	4	6	4	Billings
50	90	0.055	0.019	4	6	4	Bottineau
35	90	0.079	0.030	4	6	4	Bowman
35	90	0.091	0.023	4	6	4	Burke
35	90	0.068	0.024	4	7	4	Burleigh
50	90	0.074	0.021	5	7	4	Cass
60	90	0.046	0.016	4	6	4	Cavalier
40	90	0.081	0.025	5	7	4	Dickey
35	90	0.161	0.030	4	6	4	Divide
CS	90	0.075	0.026	4	6	4	Dunn
40	90	0.055	0.020	4	7	4	Eddy
50	90	0.074	0.025	5	7	4	Emmons
40	90	0.057	0.020	4	7	4	Foster
30(2600)	90	0.081	0.029	4	6	4	Golden Valley
60	90	0.055	0.018	4	7	4	Grand Forks
40	90	0.072	0.026	4	7	4	Grant
40	90	0.058	0.020	4	7	4	Griggs
CS	90	0.072	0.027	4	7	4	Hettinger
35	90	0.064	0.023	5	7	4	Kidder
40	90	0.075	0.023	5	7	4	La Moure
40	90	0.069	0.024	5	7	4	Logan
40	90	0.056	0.020	4	6	4	McHenry
50	90	0.078	0.025	5	7	4	McIntosh
30(2600)	90	0.099	0.027	4	6	4	McKenzie
35	90	0.064	0.023	4	7	4	McLean
CS	90	0.065	0.023	4	7	4	Mercer
35	90	0.068	0.024	4	7	4	Morton
35	90	0.090	0.025	4	6	4	Mountrail
50	90	0.052	0.018	4	7	4	Nelson
35	90	0.066	0.024	4	7	4	Oliver
60	90	0.045	0.016	4	6	4	Pembina
40	90	0.054	0.019	4	6	4	Pierce
50	90	0.051	0.018	4	6	4	Ramsey
40	90	0.078	0.023	5	8	4	Ransom
40	90	0.070	0.021	4	6	4	Renville
50	90	0.096	0.024	5	8	4	Richland
50	90	0.049	0.017	4	6	4	Rolette
40	90	0.088	0.024	5	8	4	Sargent
35	90	0.060	0.022	4	7	4	Sheridan
50	90	0.078	0.026	5	7	4	Sioux
35	90	0.076	0.029	4	6	4	Slope
30(2600)	90	0.072	0.027	4	7	4	Stark
50	90	0.058	0.019	4	7	4	Steele
40	90	0.063	0.022	5	7	4	Stutsman
60	90	0.050	0.018	4	6	4	Towner
50	90	0.062	0.019	4	7	4	Traill
60	90	0.049	0.017	4	6	4	Walsh
35	90	0.066	0.022	4	6	4	Ward
40	90	0.056	0.020	4	7	4	Wells
30(2600)	90	0.135	0.030	4	6	4	Williams
							OHIO
20	90	0.202	0.073	5	7	12	Adams
20	90	0.244	0.065	5	7	12	Allen
20	90	0.147	0.052	5	7	12	Ashland
CS	90	0.206	0.051	4	6	12	Ashtabula
25	90	0.147	0.060	5	7	12	Athens
20	90	0.269	0.068	5	7	12	Auglaize
20	90	0.121	0.051	5	7	12	Belmont
20	90	0.199	0.075	5	7	12	Brown
20	90	0.172	0.073	5	7	12	Butler
25	90	0.128	0.050	5	7	12	Carroll
20	90	0.204	0.065	5	7	12	Champaign
20	90	0.190	0.066	5	7	12	Clark
20	90	0.182	0.074	5	7	12	Clermont
20	90	0.171	0.068	5	7	12	Clinton
25	90	0.133	0.049	5	6	12	Columbiana
25	90	0.127	0.052	5	7	12	Coshocton
20	90	0.159	0.055	5	7	12	Crawford
20	90	0.191	0.051	4	6	12	Cuyahoga
20	90	0.211	0.070	5	7	12	Darke
20	90	0.163	0.056	5	7	12	Defiance
20	90	0.156	0.058	5	7	12	Delaware
20	90	0.152	0.050	5	7	12	Erie
25	90	0.143	0.059	5	7	12	Fairfield
20	90	0.161	0.065	5	7	12	Fayette
20	90	0.148	0.059	5	7	12	Franklin
20	90	0.150	0.053	5	7	12	Fulton
20	90	0.169	0.065	5	7	12	Gallia
25	90	0.215	0.052	4	6	12	Geauga
20	90	0.178	0.067	5	7	12	Greene
25	90	0.123	0.052	5	7	12	Guernsey
20	90	0.176	0.074	5	7	12	Hamilton
20	90	0.187	0.057	5	7	12	Hancock
20	90	0.209	0.061	5	7	12	Hardin
20	90	0.121	0.050	5	7	12	Harrison
20	90	0.159	0.054	5	7	12	Henry
20	90	0.173	0.069	5	7	12	Highland
25	90	0.145	0.059	5	7	12	Hocking
20	90	0.133	0.052	5	7	12	Holmes
20	90	0.153	0.051	5	7	12	Huron
20	90	0.165	0.065	5	7	12	Jackson
25	90	0.122	0.049	5	7	12	Jefferson
20	90	0.138	0.054	5	7	12	Knox
CS	90	0.215	0.052	4	6	12	Lake
20	90	0.191	0.070	5	7	12	Lawrence
20	90	0.135	0.055	5	7	12	Licking
20	90	0.228	0.065	5	7	12	Logan
20	90	0.164	0.051	5	6	12	Lorain
20	90	0.159	0.051	5	7	12	Lucas
20	90	0.166	0.063	5	7	12	Madison
20	90	0.151	0.049	4	6	12	Mahoning
20	90	0.165	0.057	5	7	12	Marion
20	90	0.165	0.051	5	6	12	Medina
25	90	0.158	0.062	5	7	12	Meigs
20	90	0.247	0.068	5	7	12	Mercer
20	90	0.221	0.069	5	7	12	Miami
20	90	0.124	0.053	5	7	12	Monroe
20	90	0.187	0.069	5	7	12	Montgomery
25	90	0.133	0.056	5	7	12	Morgan
20	90	0.150	0.055	5	7	12	Morrow
25	90	0.130	0.054	5	7	12	Muskingum
20	90	0.126	0.054	5	7	12	Noble
20	90	0.154	0.051	5	7	12	Ottawa
20	90	0.172	0.059	5	7	12	Paulding
25	90	0.137	0.057	5	7	12	Perry
20	90	0.150	0.061	5	7	12	Pickaway
20	90	0.166	0.066	5	7	12	Pike
20	90	0.174	0.051	4	6	12	Portage
20	90	0.179	0.071	5	7	12	Preble
20	90	0.199	0.060	5	7	12	Putnam
20	90	0.146	0.053	5	7	12	Richland
20	90	0.157	0.064	5	7	12	Ross
20	90	0.163	0.053	5	7	12	Sandusky
20	90	0.190	0.070	6	7	12	Scioto
20	90	0.167	0.054	5	7	12	Seneca
20	90	0.256	0.069	5	7	12	Shelby
20	90	0.142	0.050	5	6	12	Stark
20	90	0.167	0.051	5	6	12	Summit
25	90	0.169	0.050	4	6	12	Trumbull
25	90	0.127	0.050	5	7	12	Tuscarawas
20	90	0.175	0.061	5	7	12	Union
20	90	0.210	0.064	5	7	12	Van Wert
25	90	0.155	0.062	5	7	12	Vinton
20	90	0.174	0.071	5	7	12	Warren
20	90	0.135	0.056	5	7	12	Washington
20	90	0.144	0.051	5	7	12	Wayne
20	90	0.144	0.054	5	7	12	Williams
20	90	0.169	0.054	5	7	12	Wood

S	W	S_s	S_1	I1	I2	T_L	County Name
20	90	0.175	0.057	5	7	12	Wyandot
							OKLAHOMA
10	90	0.196	0.083	8	11	12	Adair
15	90	0.171	0.053	8	11	12	Alfalfa
10	90	0.208	0.069	8	11	12	Atoka
20	90	0.126	0.043	7	10	12	Beaver
15	90	0.204	0.055	7	11	12	Beckham
10	90	0.291	0.066	8	11	12	Blaine
5	90	0.192	0.065	8	11	12	Bryan
10	90	0.395	0.082	8	11	12	Caddo
10	90	0.364	0.075	8	11	12	Canadian
10	90	0.229	0.066	8	11	12	Carter
10	90	0.185	0.078	8	11	12	Cherokee
5	90	0.175	0.069	8	11	12	Choctaw
10(5000)	90	0.138	0.041	6	8	6	Cimarron
10	90	0.340	0.076	8	11	12	Cleveland
10	90	0.221	0.070	8	11	12	Coal
10	90	0.361	0.083	8	11	12	Comanche
10	90	0.271	0.069	8	11	12	Cotton
15	90	0.146	0.070	8	11	12	Craig
10	90	0.168	0.067	8	11	12	Creek
10	90	0.240	0.061	7	11	12	Custer
15	90	0.163	0.076	8	11	12	Delaware
15	90	0.202	0.056	7	11	12	Dewey
15	90	0.158	0.049	7	11	12	Ellis
15	90	0.217	0.060	8	11	12	Garfield
10	90	0.306	0.073	8	11	12	Garvin
10	90	0.393	0.081	8	11	12	Grady
15	90	0.165	0.055	8	11	12	Grant
10	90	0.199	0.055	7	11	12	Greer
10	90	0.170	0.050	7	11	12	Harmon
20	90	0.136	0.046	7	10	12	Harper
10	90	0.202	0.078	8	11	12	Haskell
10	90	0.236	0.071	8	11	12	Hughes
10	90	0.194	0.056	7	11	12	Jackson
5	90	0.223	0.062	8	11	12	Jefferson
10	90	0.223	0.067	8	11	12	Johnston
15	90	0.144	0.056	8	11	12	Kay
10	90	0.322	0.070	8	11	12	Kingfisher
10	90	0.260	0.065	7	11	12	Kiowa
10	90	0.199	0.076	8	11	12	Latimer
10	90	0.203	0.084	8	11	12	Le Flore
10	90	0.223	0.067	8	11	12	Lincoln
10	90	0.275	0.069	8	11	12	Logan
5	90	0.202	0.062	8	11	12	Love
10	90	0.334	0.075	8	11	12	McClain
10	90	0.171	0.074	8	11	12	McCurtain
10	90	0.198	0.074	8	11	12	McIntosh
15	90	0.219	0.059	8	11	12	Major
5	90	0.212	0.065	8	11	12	Marshall
10	90	0.158	0.071	8	11	12	Mayes
10	90	0.263	0.070	8	11	12	Murray
10	90	0.185	0.074	8	11	12	Muskogee
10	90	0.200	0.062	8	11	12	Noble
15	90	0.139	0.065	8	11	12	Nowata
10	90	0.206	0.069	8	11	12	Okfuskee
10	90	0.338	0.075	8	11	12	Oklahoma
10	90	0.184	0.070	8	11	12	Okmulgee
10	90	0.140	0.061	8	11	12	Osage
15	90	0.145	0.072	8	11	12	Ottawa
10	90	0.165	0.061	8	11	12	Pawnee
10	90	0.199	0.064	8	11	12	Payne
10	90	0.205	0.072	8	11	12	Pittsburg
10	90	0.262	0.072	8	11	12	Pontotoc
10	90	0.266	0.071	8	11	12	Pottawatomie
10	90	0.184	0.070	8	11	12	Pushmataha
15	90	0.189	0.053	7	11	12	Roger Mills
10	90	0.156	0.068	8	11	12	Rogers
10	90	0.239	0.071	8	11	12	Seminole
10	90	0.202	0.082	8	11	12	Sequoyah
10	90	0.333	0.076	8	11	12	Stephens
15	90	0.126	0.041	6	9	6/12	Texas
10	90	0.194	0.057	8	11	12	Tillman
10	90	0.161	0.066	8	11	12	Tulsa
10	90	0.175	0.073	8	11	12	Wagoner
15	90	0.136	0.062	8	11	12	Washington
10	90	0.260	0.064	7	11	12	Washita
15	90	0.159	0.051	7	11	12	Woods
15	90	0.155	0.050	7	11	12	Woodward
							OREGON
CS	85	0.367	0.111	4	6	6/16	Baker
CS	85*	0.803	0.393	4	6	16	Benton
CS	85*	0.907	0.322	4	6	16	Clackamas
CS	85*	1.317	0.650	4	6	16	Clatsop
10(600)	85*	0.882	0.330	4	6	16	Columbia
CS	85*	1.500	0.704	4	6	16	Coos
10(3200)	85*	0.353	0.141	4	6	16	Crook
5(300)	85*	1.770	0.749	4	6	16	Curry
CS	85*	0.393	0.164	4	6	16	Deschutes
10(600)	85*	0.802	0.408	4	6	16	Douglas
20(2800)	85	0.439	0.141	4	6	16	Gilliam
10(3200)	85	0.349	0.110	4	6	16	Grant
10(3200)	85	0.271	0.103	4	6	8/16	Harney
CS	85*	0.517	0.193	4	6	16	Hood River
CS	85	0.580	0.262	4	6	16	Jackson
CS	85*	0.391	0.153	4	6	16	Jefferson
CS	85	0.760	0.381	4	6	16	Josephine
CS	85*	0.886	0.343	4	6	16	Klamath
10(3200)	85	0.562	0.222	4	6	16	Lake
10(600)	85*	0.671	0.330	4	6	16	Lane
5(100)	85*	1.813	0.690	4	6	16	Lincoln
10(600)	85	0.743	0.345	4	6	16	Linn
10(3200)	85	0.323	0.109	4	6	6/8/16	Malheur
10(600)	85	0.796	0.340	4	6	16	Marion
15(1500)	85	0.371	0.123	4	6	16	Morrow
10(600)	85	0.983	0.344	4	6	16	Multnomah
CS	85*	0.888	0.424	4	6	16	Polk
20(2800)	85	0.460	0.157	4	6	16	Sherman
CS	85*	1.307	0.659	4	6	16	Tillamook
20(1900)	85	0.397	0.122	4	6	16	Umatilla
CS	85	0.350	0.111	4	6	16	Union
CS	85	0.475	0.138	4	6	6/16	Wallowa
CS	85*	0.474	0.173	4	6	16	Wasco
10(600)	85*	0.917	0.355	4	6	16	Washington
CS	85	0.415	0.137	4	6	16	Wheeler
CS	85*	0.859	0.387	4	6	16	Yamhill
							PENNSYLVANIA
30(1700)	90	0.167	0.051	6	9	6	Adams
25	90	0.125	0.049	5	7	12	Allegheny
CS	90	0.127	0.048	4	6	12	Armstrong
25	90	0.127	0.048	5	6	12	Beaver
CS	90	0.152	0.051	5	7	12	Bedford
CS	90	0.261	0.060	6	8	6	Berks
30(1700)	90	0.145	0.049	5	7	6/12	Blair
30(1700)	90	0.161	0.054	4	6	6	Bradford
30	90	0.282	0.062	6	8	6	Bucks
25	90	0.128	0.048	4	6	12	Butler
CS	90	0.136	0.049	5	7	12	Cambria
30(1700)	90	0.137	0.048	4	6	6	Cameron
CS	90	0.228	0.059	6	8	6	Carbon
30(1700)	90	0.146	0.049	5	7	6	Centre
25	90	0.277	0.060	6	9	6	Chester
30(1700)	90	0.131	0.047	4	6	12	Clarion
30(1700)	90	0.135	0.047	5	7	6/12	Clearfield
30(1700)	90	0.146	0.050	5	7	6	Clinton
CS	90	0.184	0.054	5	7	6	Columbia
30(1700)	90	0.163	0.049	4	6	12	Crawford
25(1200)	90	0.170	0.051	5	8	6	Cumberland
30(1700)	90	0.188	0.053	6	8	6	Dauphin
25	90	0.273	0.060	6	9	6	Delaware
30(1700)	90	0.134	0.047	4	6	6/12	Elk
CS	90	0.164	0.049	4	6	12	Erie
CS	90	0.131	0.050	5	7	12	Fayette
30(1700)	90	0.136	0.048	4	6	12	Forest
30(1700)	90	0.162	0.050	5	8	6/8	Franklin
CS	90	0.163	0.050	5	7	8/12	Fulton
20	90	0.128	0.051	5	7	12	Greene
30(1700)	90	0.152	0.049	5	7	6/12	Huntingdon
CS	90	0.128	0.048	5	7	12	Indiana
CS	90	0.130	0.048	4	6	12	Jefferson
25(1200)	90	0.158	0.050	5	7	6	Juniata
CS	90	0.199	0.058	5	7	6	Lackawanna
30(1700)	90	0.244	0.057	6	9	6	Lancaster

S	W	S_s	S_1	I1	I2	T_L	County Name
25	90	0.137	0.048	4	6	12	Lawrence
30(1700)	90	0.230	0.057	6	8	6	Lebanon
CS	90	0.257	0.061	6	8	6	Lehigh
CS	90	0.200	0.057	5	7	6	Luzerne
35(800)	90	0.154	0.051	5	7	6	Lycoming
CS	90	0.145	0.048	4	6	6/12	McKean
30	90	0.146	0.048	4	6	12	Mercer
25(1200)	90	0.155	0.050	5	7	6	Mifflin
CS	90	0.248	0.062	6	8	6	Monroe
30	90	0.278	0.061	6	8	6	Montgomery
CS	90	0.177	0.053	5	7	6	Montour
CS	90	0.267	0.062	6	8	6	Northampton
CS	90	0.172	0.052	5	7	6	Northumberland
25(1200)	90	0.167	0.051	5	8	6	Perry
25	90	0.269	0.060	6	9	6	Philadelphia
CS	90	0.249	0.063	5	8	6	Pike
CS	90	0.144	0.049	4	6	6	Potter
CS	90	0.220	0.057	6	8	6	Schuylkill
35(800)	90	0.163	0.051	5	7	6	Snyder
CS	90	0.136	0.050	5	7	12	Somerset
30(1700)	90	0.168	0.053	5	7	6	Sullivan
CS	90	0.174	0.056	5	7	6	Susquehanna
30(1700)	90	0.146	0.051	4	6	6	Tioga
35(800)	90	0.165	0.052	5	7	6	Union
30(1700)	90	0.140	0.048	4	6	12	Venango
CS	90	0.145	0.048	4	6	6/12	Warren
25	90	0.124	0.050	5	7	12	Washington
CS	90	0.203	0.059	5	7	6	Wayne
CS	90	0.127	0.049	5	7	12	Westmoreland
30(1700)	90	0.184	0.056	5	7	6	Wyoming
30(1700)	90	0.201	0.054	6	9	6	York
							RHODE ISLAND
30	111	0.227	0.059	5	8	6	Bristol
30	**110**	0.226	0.059	5	8	6	Kent
30	**116**	0.211	0.056	6	8	6	Newport
35	105	0.234	0.061	5	7	6	Providence
30	**119**	0.213	0.057	6	8	6	Washington
							SOUTH CAROLINA
10	90	0.370	0.108	7	9	8	Abbeville
10	94	0.438	0.126	8	10	8	Aiken
5	101	0.518	0.145	8	11	8	Allendale
10	90	0.349	0.104	7	9	8	Anderson
5	101	0.638	0.165	8	11	8	Bamberg
5	98	0.519	0.144	8	11	8	Barnwell
5	**122**	0.693	0.183	9	11	8	Beaufort
5	**121**	2.540	0.706	9	11	8	Berkeley
10	98	0.686	0.175	8	10	8	Calhoun
5	**129**	1.428	0.351	9	11	8	Charleston
10	90	0.339	0.107	6	9	8	Cherokee
10	90	0.402	0.119	7	9	8	Chester
10	95	0.433	0.130	7	10	8	Chesterfield
10	104	1.134	0.287	8	11	8	Clarendon
5	**110**	0.956	0.238	9	11	8	Colleton
10	98	0.636	0.175	8	10	8	Darlington
10	102	0.530	0.155	8	11	8	Dillon
5	**110**	1.056	0.261	9	11	8	Dorchester
10	92	0.406	0.118	7	10	8	Edgefield
10	92	0.472	0.133	7	10	8	Fairfield
10	105	0.734	0.200	8	11	8	Florence
5	**126**	0.951	0.248	9	11	8	Georgetown
10	90	0.353	0.106	7	9	8	Greenville
10	90	0.384	0.112	7	10	8	Greenwood
5	105	0.573	0.156	9	11	8	Hampton
10	**119**	0.667	0.185	9	11	8	Horry
0	**111**	0.547	0.153	9	11	8	Jasper
10	95	0.542	0.151	7	10	8	Kershaw
10	92	0.415	0.124	7	10	8	Lancaster
10	90	0.377	0.112	7	9	8	Laurens
10	97	0.607	0.166	8	10	8	Lee
10	94	0.521	0.142	8	10	8	Lexington
10	90	0.369	0.109	7	10	8	McCormick
10	108	0.691	0.191	8	11	8	Marion
10	97	0.468	0.140	8	10	8	Marlboro
10	90	0.434	0.123	7	10	8	Newberry
10(1800)	90	0.350	0.103	7	9	12	Oconee
10	100	0.697	0.177	8	11	8	Orangeburg
10(1800)	90	0.361	0.105	7	9	12	Pickens
10	95	0.551	0.149	8	10	8	Richland
10	91	0.430	0.122	7	10	8	Saluda
10	90	0.348	0.107	7	9	8	Spartanburg
10	97	0.758	0.199	8	10	8	Sumter
10	90	0.383	0.114	7	9	8	Union
10	111	1.819	0.470	9	11	8	Williamsburg
10	90	0.350	0.110	6	9	8	York
							SOUTH DAKOTA
40	90	0.186	0.037	6	9	4	Aurora
40	90	0.167	0.034	6	9	4	Beadle
25	90	0.173	0.041	5	8	4	Bennett
40	90	0.158	0.038	6	10	12	Bon Homme
50	90	0.109	0.029	6	9	4	Brookings
50	90	0.097	0.027	5	8	4	Brown
40	90	0.179	0.038	6	9	4	Brule
40	90	0.187	0.037	5	9	4	Buffalo
30(3700)	90	0.139	0.041	4	6	4	Butte
50	90	0.087	0.027	5	7	4	Campbell
40	90	0.166	0.036	6	9	4/12	Charles Mix
50	90	0.118	0.029	6	9	4	Clark
35	90	0.121	0.036	7	10	12	Clay
50	90	0.106	0.028	6	9	4	Codington
50	90	0.079	0.028	5	7	4	Corson
20	90	0.195	0.048	4	7	4	Custer
40	90	0.164	0.035	6	9	4	Davison
50	90	0.103	0.027	5	8	4	Day
50	90	0.102	0.027	6	9	4	Deuel
50	90	0.088	0.029	5	7	4	Dewey
40	90	0.168	0.036	6	9	4	Douglas
50	90	0.096	0.028	5	8	4	Edmunds
15(5500)	90	0.207	0.049	4	7	4	Fall River
50	90	0.115	0.030	5	8	4	Faulk
50	90	0.108	0.027	6	8	4	Grant
40	90	0.166	0.037	6	9	4	Gregory
30	90	0.131	0.037	5	8	4	Haakon
50	90	0.111	0.029	6	9	4	Hamlin
40	90	0.155	0.034	5	8	4	Hand
40	90	0.149	0.034	6	9	4	Hanson
35	90	0.094	0.033	4	6	4	Harding
35	90	0.136	0.034	5	8	4	Hughes
40	90	0.150	0.036	6	9	4/12	Hutchinson
40	90	0.145	0.034	5	8	4	Hyde
25	90	0.140	0.038	5	8	4	Jackson
40	90	0.191	0.037	6	9	4	Jerauld
30	90	0.138	0.036	5	8	4	Jones
50	90	0.130	0.031	6	9	4	Kingsbury
40	90	0.121	0.031	6	9	4/12	Lake
25(4800)	90	0.157	0.044	4	6	4	Lawrence
40	90	0.106	0.034	6	9	12	Lincoln
35	90	0.155	0.036	5	9	4	Lyman
40	90	0.131	0.033	6	9	4/12	McCook
50	90	0.087	0.026	5	7	4	McPherson
50	90	0.094	0.026	5	8	4	Marshall
30	90	0.150	0.042	4	7	4	Meade
30	90	0.140	0.037	5	8	4	Mellette
40	90	0.135	0.032	6	9	4	Miner
40	90	0.111	0.034	6	9	12	Minnehaha
40	90	0.107	0.031	6	9	4/12	Moody
20	90	0.163	0.043	4	7	4	Pennington
CS	90	0.086	0.031	4	7	4	Perkins
50	90	0.114	0.031	5	8	4	Potter
50	90	0.106	0.026	5	8	4	Roberts
40	90	0.182	0.036	6	9	4	Sanborn
20	90	0.190	0.045	5	7	4	Shannon
50	90	0.130	0.031	5	8	4	Spink
35	90	0.136	0.035	5	8	4	Stanley
40	90	0.127	0.033	5	8	4	Sully
25	90	0.165	0.035	5	8	4	Todd
35	90	0.151	0.037	5	9	4	Tripp
40	90	0.125	0.035	6	9	12	Turner
35	90	0.110	0.036	7	10	12	Union
50	90	0.094	0.028	5	7	4	Walworth
35	90	0.145	0.038	6	10	12	Yankton
40	90	0.094	0.031	5	7	4	Ziebach
							TENNESSEE
10(1800)	90	0.467	0.114	6	9	12	Anderson

S	W	S_s	S_1	I1	I2	T_L	County Name	S	W	S_s	S_1	I1	I2	T_L	County Name
10	90	0.297	0.116	6	9	12	Bedford	10(1800)	90	0.271	0.112	6	8	12	Smith
10	90	0.720	0.215	6	8	12	Benton	10	90	0.716	0.213	6	8	12	Stewart
10(1800)	90	0.364	0.110	6	9	12	Bledsoe	15(2600)	90	0.379	0.099	6	8	12	Sullivan
10(1800)	90*	0.529	0.119	6	9	12	Blount	10	90	0.317	0.126	6	8	12	Sumner
10(1800)	90	0.494	0.117	7	9	12	Bradley	10	90	1.500	0.497	7	9	12	Tipton
10(1800)	90	0.407	0.109	6	8	12	Campbell	10	90	0.288	0.117	6	8	12	Trousdale
10(1800)	90	0.277	0.111	6	8	12	Cannon	15(2600)	90	0.398	0.104	6	9	12	Unicoi
10	90	0.877	0.248	7	9	12	Carroll	10(1800)	90*	0.490	0.114	6	8	12	Union
15(2600)	90*	0.381	0.101	6	8	12	Carter	10(1800)	90	0.302	0.107	6	9	12	Van Buren
10	90	0.409	0.148	6	8	12	Cheatham	10(1800)	90	0.287	0.108	6	9	12	Warren
10	90	0.723	0.219	7	9	12	Chester	15(2600)	90*	0.399	0.103	6	9	12	Washington
10(1800)	90	0.462	0.110	6	8	12	Claiborne	10	90	0.445	0.157	7	9	12	Wayne
10(1800)	90	0.250	0.105	6	8	12	Clay	10	90	1.193	0.324	6	9	12	Weakley
10(1800)	90*	0.485	0.114	6	9	12	Cocke	10(1800)	90	0.283	0.106	6	9	12	White
10(1800)	90	0.292	0.111	6	9	12	Coffee	10	90	0.344	0.132	6	8	12	Williamson
10	90	1.364	0.370	7	9	12	Crockett	10	90	0.295	0.119	6	8	12	Wilson
10(1800)	90	0.325	0.107	6	8	12	Cumberland								
10	90	0.347	0.134	6	8	12	Davidson								**TEXAS**
10	90	0.600	0.191	7	9	12	Decatur	5	90	0.111	0.049	9	11	12	Anderson
10(1800)	90	0.270	0.108	6	8	12	De Kalb	5	90	0.220	0.040	6	8	6	Andrews
10	90	0.458	0.159	6	8	12	Dickson	5	91	0.119	0.051	10	12	12	Angelina
10	90	2.552	0.655	7	9	12	Dyer	0	**131**	0.083	0.021	10	12	6/12	Aransas
10	90	0.893	0.253	7	9	12	Fayette	5	90	0.136	0.049	8	11	12	Archer
10(1800)	90	0.271	0.102	6	8	12	Fentress	15	90	0.173	0.045	6	9	6/12	Armstrong
10(1800)	90	0.311	0.111	6	9	12	Franklin	5	93	0.129	0.026	9	12	6/12	Atascosa
10	90	1.500	0.408	7	9	12	Gibson	5	97	0.088	0.035	10	12	12	Austin
10	90	0.323	0.125	6	9	12	Giles	15	90	0.110	0.035	6	8	6	Bailey
10(1800)	90	0.493	0.113	6	8	12	Grainger	5	90	0.081	0.024	8	11	6/12	Bandera
10(1800)	90*	0.437	0.108	6	9	12	Greene	5	92	0.086	0.033	9	12	12	Bastrop
10(1800)	90	0.319	0.109	6	9	12	Grundy	5	90	0.120	0.045	8	11	12	Baylor
10(1800)	90	0.490	0.113	6	8	12	Hamblen	0	106	0.107	0.024	9	12	6/12	Bee
10(1800)	90	0.455	0.115	7	9	12	Hamilton	5	90	0.080	0.036	9	11	12	Bell
10(1800)	90	0.433	0.106	6	8	12	Hancock	5	90	0.109	0.029	9	12	6/12	Bexar
10	90	0.751	0.225	7	9	12	Hardeman	5	90	0.079	0.031	9	11	12	Blanco
10	90	0.530	0.176	7	9	12	Hardin	5	90	0.104	0.032	6	10	6	Borden
10(1800)	90	0.435	0.107	6	8	12	Hawkins	5	90	0.084	0.040	9	11	12	Bosque
10	90	1.193	0.329	7	9	12	Haywood	5	90	0.165	0.074	8	11	12	Bowie
10	90	0.722	0.219	7	9	12	Henderson	0	**120**	0.081	0.033	10	13	12	Brazoria
10	90	0.886	0.245	6	8	12	Henry	5	90	0.091	0.039	10	12	12	Brazos
10	90	0.447	0.157	6	8	12	Hickman	0(4500)	90	0.327	0.092	6	9	6	Brewster
10	90	0.608	0.189	6	8	12	Houston	15	90	0.131	0.041	6	10	12	Briscoe
10	90	0.592	0.187	6	8	12	Humphreys	0	106	0.078	0.018	9	12	6	Brooks
10(1800)	90	0.258	0.107	6	8	12	Jackson	5	90	0.073	0.034	8	11	12	Brown
10(1800)	90	0.513	0.116	6	9	12	Jefferson	5	90	0.089	0.037	9	12	12	Burleson
20(2500)	90*	0.349	0.096	6	8	12	Johnson	5	90	0.074	0.033	9	11	12	Burnet
10(1800)	90	0.519	0.118	6	9	12	Knox	5	92	0.089	0.032	9	12	12	Caldwell
10	90	3.319	1.195	7	9	12	Lake	0	**121**	0.084	0.029	10	12	12	Calhoun
10	90	1.500	0.600	7	9	12	Lauderdale	5	90	0.083	0.036	8	11	12	Callahan
10	90	0.358	0.136	6	9	12	Lawrence	0	**129**	0.043	0.012	10	12	6	Cameron
10	90	0.436	0.154	6	9	12	Lewis	5	90	0.146	0.065	8	11	12	Camp
10	90	0.303	0.115	6	9	12	Lincoln	20	90	0.186	0.047	6	9	6/12	Carson
10(1800)	90	0.495	0.117	6	9	12	Loudon	5	90	0.158	0.070	8	11	12	Cass
10(1800)	90	0.495	0.118	7	9	12	McMinn	20	90	0.124	0.037	6	8	12	Castro
10	90	0.595	0.190	7	9	12	McNairy	0	**119**	0.090	0.038	11	13	12	Chambers
10	90	0.278	0.115	6	8	12	Macon	5	90	0.120	0.052	9	11	12	Cherokee
10	90	0.890	0.253	7	9	12	Madison	10	90	0.146	0.046	7	11	12	Childress
10(1800)	90	0.390	0.112	6	9	12	Marion	5	90	0.165	0.054	8	11	12	Clay
10	90	0.317	0.123	6	9	12	Marshall	5(3200)	90	0.109	0.034	6	8	6	Cochran
10	90	0.351	0.134	6	9	12	Maury	5	90	0.090	0.032	7	11	6/12	Coke
10(1800)	90	0.457	0.115	7	9	12	Meigs	5	90	0.076	0.034	8	11	12	Coleman
10(1800)	90	0.510	0.118	7	9	12	Monroe	5	90	0.138	0.055	9	11	12	Collin
10	90	0.528	0.174	6	8	12	Montgomery	15	90	0.176	0.049	7	10	12	Collingsworth
10	90	0.298	0.113	6	9	12	Moore	5	98	0.088	0.034	10	12	12	Colorado
10(1800)	90	0.371	0.108	6	8	12	Morgan	5	90	0.097	0.031	9	12	12	Comal
10	90	1.500	0.563	7	9	12	Obion	5	90	0.076	0.036	8	11	12	Comanche
10(1800)	90	0.256	0.104	6	8	12	Overton	5	90	0.076	0.032	8	11	12	Concho
10	90	0.516	0.173	6	9	12	Perry	5	90	0.170	0.058	8	11	12	Cooke
10(1800)	90	0.250	0.102	6	8	12	Pickett	5	90	0.078	0.037	9	11	12	Coryell
10(1800)	90	0.502	0.117	7	9	12	Polk	10	90	0.121	0.043	7	11	12	Cottle
10(1800)	90	0.264	0.106	6	8	12	Putnam	5	90	0.156	0.037	6	9	6	Crane
10(1800)	90	0.422	0.113	6	9	12	Rhea	0	90	0.078	0.026	7	10	6	Crockett
10(1800)	90	0.438	0.113	6	9	12	Roane	10	90	0.101	0.037	6	10	6/12	Crosby
10	90	0.396	0.146	6	8	12	Robertson	0(3500)	90	0.344	0.105	5	7	6	Culberson
10	90	0.293	0.117	6	8	12	Rutherford	10(5000)	90	0.171	0.043	6	8	6	Dallam
10(1800)	90	0.329	0.104	6	8	12	Scott	5	90	0.115	0.050	9	11	12	Dallas
10(1800)	90	0.379	0.111	6	9	12	Sequatchie	5	90	0.126	0.034	6	9	6	Dawson
10(1800)	90*	0.523	0.118	6	9	12	Sevier	15	90	0.142	0.039	6	8	6	Deaf Smith
10	90	1.393	0.379	7	10	12	Shelby	5	90	0.150	0.062	9	11	12	Delta

S	W	S_s	S_1	I1	I2	T_L	County Name	S	W	S_s	S_1	I1	I2	T_L	County Name
5	90	0.136	0.053	8	11	12	Denton	5	90	0.073	0.034	8	11	12	Lampasas
5	100	0.102	0.031	9	12	12	De Witt	0	92	0.087	0.021	9	11	6	La Salle
10	90	0.101	0.038	7	10	12	Dickens	5	99	0.091	0.032	9	12	12	Lavaca
0	90	0.072	0.020	9	11	6	Dimmit	5	91	0.087	0.035	9	12	12	Lee
15	90	0.174	0.047	7	10	12	Donley	5	90	0.099	0.044	9	12	12	Leon
0	99	0.091	0.021	9	12	6	Duval	5	106	0.094	0.040	10	13	12	Liberty
5	90	0.084	0.038	8	11	12	Eastland	5	90	0.097	0.043	9	12	12	Limestone
5	90	0.194	0.038	6	9	6	Ector	15	90	0.148	0.046	7	10	12	Lipscomb
5	90	0.064	0.022	8	11	6	Edwards	0	100	0.111	0.024	9	12	6	Live Oak
5	90	0.103	0.047	9	11	12	Ellis	5	90	0.071	0.031	8	11	12	Llano
0(3500)	90	0.332	0.107	4	6	6	El Paso	5	90	0.186	0.048	5	8	6	Loving
5	90	0.084	0.039	8	11	12	Erath	15	90	0.103	0.034	6	9	6	Lubbock
5	90	0.090	0.040	9	12	12	Falls	5(3200)	90	0.106	0.033	6	9	6	Lynn
5	90	0.160	0.061	8	11	12	Fannin	5	90	0.069	0.031	8	12	12	McCulloch
5	95	0.088	0.034	9	12	12	Fayette	5	90	0.087	0.040	9	11	12	McLennan
5	90	0.090	0.036	7	11	12	Fisher	0	96	0.111	0.024	9	11	6	McMullen
15	90	0.109	0.038	6	10	6/12	Floyd	5	90	0.096	0.042	10	12	12	Madison
10	90	0.131	0.046	7	11	12	Foard	0	90	0.153	0.067	9	11	12	Marion
0	108	0.086	0.035	10	13	12	Fort Bend	5	90	0.129	0.032	6	9	6	Martin
5	90	0.147	0.064	8	11	12	Franklin	5	90	0.068	0.030	8	11	12	Mason
5	90	0.104	0.046	9	11	12	Freestone	0	**120**	0.081	0.031	10	13	12	Matagorda
5	90	0.096	0.023	9	11	6	Frio	0	90	0.058	0.019	8	11	6	Maverick
5(3200)	90	0.184	0.038	6	8	6	Gaines	5	90	0.087	0.023	9	11	6/12	Medina
0	**123**	0.082	0.035	10	13	12	Galveston	5	90	0.068	0.030	8	11	6/12	Menard
5	90	0.099	0.033	6	10	6/12	Garza	5	90	0.158	0.035	6	9	6	Midland
5	90	0.075	0.030	8	11	12	Gillespie	5	90	0.088	0.038	9	12	12	Milam
5	90	0.110	0.030	6	10	6	Glasscock	5	90	0.072	0.034	8	11	12	Mills
0	106	0.103	0.029	9	12	6/12	Goliad	5	90	0.096	0.032	7	11	6/12	Mitchell
5	95	0.098	0.032	9	12	12	Gonzales	5	90	0.163	0.055	8	11	12	Montague
15	90	0.190	0.048	7	10	12	Gray	5	97	0.093	0.040	10	12	12	Montgomery
5	90	0.169	0.060	8	11	12	Grayson	15	90	0.172	0.043	6	9	6/12	Moore
5	90	0.143	0.062	9	11	12	Gregg	5	90	0.151	0.067	8	11	12	Morris
5	92	0.091	0.039	10	12	12	Grimes	10	90	0.114	0.040	7	10	12	Motley
5	93	0.103	0.031	9	12	12	Guadalupe	5	90	0.126	0.054	9	11	12	Nacogdoches
15	90	0.112	0.036	6	9	6/12	Hale	5	90	0.105	0.047	9	11	12	Navarro
15	90	0.163	0.047	7	10	12	Hall	5	97	0.124	0.051	10	12	12	Newton
5	90	0.077	0.037	8	11	12	Hamilton	5	90	0.090	0.035	7	11	12	Nolan
15	90	0.147	0.044	6	9	6/12	Hansford	0	**116**	0.085	0.020	10	12	6	Nueces
10	90	0.148	0.048	7	11	12	Hardeman	15	90	0.140	0.044	7	10	12	Ochiltree
5	105	0.104	0.044	10	13	12	Hardin	10(5000)	90	0.188	0.043	6	8	6	Oldham
0	105	0.088	0.037	10	13	12	Harris	0	**112**	0.105	0.044	11	13	12	Orange
5	90	0.143	0.072	9	11	12	Harrison	5	90	0.098	0.043	8	11	12	Palo Pinto
10(5000)	90	0.193	0.044	6	8	6	Hartley	5	90	0.141	0.061	9	11	12	Panola
5	90	0.096	0.039	7	11	12	Haskell	5	90	0.103	0.045	8	11	12	Parker
5	90	0.090	0.031	9	12	12	Hays	15	90	0.114	0.035	6	8	6	Parmer
20	90	0.161	0.048	7	10	12	Hemphill	5	90	0.160	0.048	6	9	6	Pecos
5	90	0.115	0.051	9	11	12	Henderson	5	95	0.103	0.045	10	12	12	Polk
0	105	0.056	0.014	10	12	6	Hidalgo	15	90	0.176	0.043	6	9	6/12	Potter
5	90	0.092	0.043	9	11	12	Hill	0(4500)	90	0.328	0.096	5	8	6	Presidio
15	90	0.108	0.034	6	8	6	Hockley	5	90	0.132	0.057	9	11	12	Rains
5	90	0.093	0.043	8	11	12	Hood	20	90	0.155	0.041	6	9	6/12	Randall
5	90	0.142	0.061	9	11	12	Hopkins	5	90	0.095	0.029	7	10	6	Reagan
5	90	0.105	0.047	9	12	12	Houston	5	90	0.068	0.022	8	11	6	Real
5	90	0.111	0.031	6	10	6	Howard	5	90	0.161	0.069	8	11	12	Red River
0(3500)	90	0.343	0.110	4	6	6	Hudspeth	5	90	0.174	0.050	5	8	6	Reeves
5	90	0.227	0.071	9	11	12	Hunt	0	**117**	0.092	0.022	10	12	6/12	Refugio
15	90	0.173	0.045	6	9	6/12	Hutchinson	20	90	0.177	0.048	7	10	12	Roberts
5	90	0.081	0.027	7	11	6	Irion	5	90	0.093	0.040	9	12	12	Robertson
5	90	0.120	0.047	8	11	12	Jack	5	90	0.127	0.053	9	11	12	Rockwall
0	**112**	0.088	0.031	10	12	12	Jackson	5	90	0.080	0.033	7	11	12	Runnels
5	96	0.126	0.051	10	12	12	Jasper	5	90	0.135	0.058	9	11	12	Rusk
0(3500)	90	0.326	0.094	5	8	6	Jeff Davis	5	91	0.139	0.056	9	11	12	Sabine
0	**119**	0.100	0.042	11	13	12	Jefferson	5	90	0.139	0.057	9	11	12	San Augustine
0	98	0.077	0.018	9	12	6	Jim Hogg	5	96	0.099	0.043	10	12	12	San Jacinto
0	105	0.091	0.021	9	12	6	Jim Wells	0	**118**	0.091	0.022	10	12	6	San Patricio
5	90	0.094	0.044	9	11	12	Johnson	5	90	0.070	0.033	8	11	12	San Saba
5	90	0.088	0.037	7	11	12	Jones	0	90	0.071	0.025	7	11	6	Schleicher
5	97	0.134	0.030	9	12	6/12	Karnes	5	90	0.095	0.034	7	11	6/12	Scurry
5	90	0.117	0.051	9	11	12	Kaufman	5	90	0.089	0.038	8	11	12	Shackelford
5	90	0.087	0.030	9	11	12	Kendall	5	90	0.139	0.059	9	11	12	Shelby
0	**120**	0.077	0.018	10	12	6	Kenedy	15	90	0.145	0.041	6	9	6/12	Sherman
5	90	0.095	0.037	7	10	12	Kent	5	90	0.129	0.056	9	11	12	Smith
5	90	0.074	0.027	8	11	6/12	Kerr	5	90	0.088	0.041	9	11	12	Somervell
5	90	0.066	0.024	8	11	6/12	Kimble	0	98	0.053	0.014	9	12	6	Starr
10	90	0.105	0.040	7	11	12	King	5	90	0.092	0.040	8	11	12	Stephens
0	90	0.062	0.021	8	11	12	Kinney	5	90	0.096	0.029	7	11	6	Sterling
0	**118**	0.084	0.020	10	12	6	Kleberg	5	90	0.094	0.038	7	11	12	Stonewall
5	90	0.110	0.042	7	11	12	Knox	0	90	0.068	0.024	8	11	6	Sutton
0	90	0.162	0.066	8	11	12	Lamar	15	90	0.126	0.038	6	9	6/12	Swisher
15	90	0.106	0.034	6	8	12	Lamb	5	90	0.107	0.047	9	11	12	Tarrant

S	W	S_s	S_1	I1	I2	T_L	County Name
5	90	0.084	0.036	7	11	12	Taylor
0	90	0.144	0.046	7	10	6	Terrell
5(3200)	90	0.119	0.034	6	8	6	Terry
5	90	0.102	0.042	8	11	12	Throckmorton
5	90	0.149	0.066	8	11	12	Titus
5	90	0.080	0.027	7	11	6/12	Tom Green
5	90	0.082	0.033	9	12	12	Travis
5	90	0.106	0.046	10	12	12	Trinity
5	97	0.114	0.047	10	12	12	Tyler
5	90	0.142	0.062	9	11	12	Upshur
5	90	0.118	0.032	6	9	6	Upton
5	90	0.073	0.021	8	11	6	Uvalde
0	90	0.061	0.022	8	11	6	Val Verde
5	90	0.122	0.054	9	11	12	Van Zandt
0	**110**	0.093	0.030	10	12	12	Victoria
5	93	0.096	0.042	10	12	12	Walker
5	97	0.089	0.037	10	12	12	Waller
5	90	0.215	0.044	5	8	6	Ward
5	94	0.088	0.036	10	12	12	Washington
0	91	0.067	0.017	9	11	6	Webb
0	108	0.085	0.033	10	12	12	Wharton
15	90	0.186	0.050	7	10	12	Wheeler
5	90	0.166	0.054	8	11	12	Wichita
10	90	0.154	0.050	8	11	12	Wilbarger
0	**121**	0.060	0.015	10	12	6	Willacy
5	90	0.079	0.034	9	12	12	Williamson
5	94	0.137	0.030	9	12	6/12	Wilson
5	90	0.253	0.046	5	8	6	Winkler
5	90	0.131	0.050	8	11	12	Wise
5	90	0.134	0.059	9	11	12	Wood
5(3200)	90	0.136	0.035	6	8	6	Yoakum
5	90	0.108	0.044	8	11	12	Young
0	94	0.059	0.015	9	11	6	Zapata
0	90	0.073	0.020	9	11	6	Zavala
							UTAH
15(5000)	90	0.734	0.222	4	6	6	Beaver
CS	90	1.396	0.551	4	6	6/8	Box Elder
CS	90	0.927	0.328	4	6	6/8	Cache
CS	90	0.473	0.155	4	6	8	Carbon
20(6600)	90	0.333	0.100	4	6	6	Daggett
CS	90	1.386	0.573	4	6	6/8	Davis
35(6000)	90	0.345	0.114	4	6	6/8	Duchesne
15(4500)	90	0.646	0.205	4	6	4/6/8	Emery
CS	90	0.767	0.251	4	6	4/6	Garfield
15(4500)	90	0.212	0.064	4	6	4/8	Grand
CS	90	1.138	0.400	4	6	6	Iron
10(4800)	90	1.065	0.397	4	6	6/8	Juab
CS	90	0.443	0.152	4	6	6/8	Kane
15(5000)	90	0.725	0.214	4	6	6/8	Millard
CS	90	0.810	0.302	4	6	6/8	Morgan
CS	90	0.734	0.219	4	6	6	Piute
CS	90	0.719	0.255	4	6	6	Rich
CS	90	1.711	0.693	4	6	8	Salt Lake
CS	90	0.197	0.055	4	6	4/6	San Juan
CS	90	0.700	0.225	4	6	6/8	Sanpete
15(4500)	90	0.820	0.240	4	6	6	Sevier
CS	90	0.570	0.212	4	6	6/8	Summit
CS	90	0.784	0.292	4	6	6/8	Tooele
30(6000)	90	0.339	0.089	4	6	4/6/8	Uintah
CS	90	1.250	0.529	4	6	8	Utah
CS	90	0.647	0.234	4	6	8	Wasatch
CS	90	0.504	0.161	4	6	6/8	Washington
15(4500)	90	0.657	0.186	4	6	4/6	Wayne
CS	90	1.381	0.576	4	6	6/8	Weber
							VERMONT
40	90	0.316	0.087	4	6	6	Addison
CS	90*	0.229	0.070	4	7	6	Bennington
60(1000)	90*	0.303	0.086	4	6	6	Caledonia
40	90	0.381	0.097	4	6	6	Chittenden
CS	90*	0.302	0.085	4	6	6	Essex
50(900)	90	0.420	0.102	4	6	6	Franklin
40	90	0.470	0.107	4	6	6	Grand Isle
CS	90	0.317	0.090	4	6	6	Lamoille
CS	90*	0.301	0.084	4	6	6	Orange
CS	90	0.295	0.088	4	6	6	Orleans
50(900)	90	0.274	0.079	4	6	6	Rutland
CS	90	0.304	0.086	4	6	6	Washington
CS	90*	0.238	0.072	4	7	6	Windham
CS	90*	0.285	0.080	4	6	6	Windsor
							VIRGINIA
15	**114**	0.106	0.043	8	11	8	Accomack
30(900)	90	0.250	0.065	6	9	12	Albemarle
CS	90	0.225	0.072	6	8	12	Alleghany
20	90	0.244	0.066	7	10	8/12	Amelia
30(900)	90	0.235	0.069	6	9	12	Amherst
25	90	0.235	0.069	6	10	12	Appomattox
25	90	0.154	0.050	7	10	12	Arlington
CS	90	0.210	0.064	6	8	12	Augusta
CS	90	0.197	0.065	6	8	12	Bath
25	90	0.217	0.071	6	9	12	Bedford
25(2500)	90*	0.346	0.088	6	8	12	Bland
CS	90	0.236	0.072	6	9	12	Botetourt
20	90	0.171	0.063	8	11	8	Brunswick
20(2500)	90	0.309	0.087	6	8	12	Buchanan
25	90	0.275	0.069	7	10	12	Buckingham
25	90	0.215	0.069	6	9	12	Campbell
25	90	0.189	0.055	8	11	8	Caroline
25(2500)	90	0.299	0.086	6	9	12	Carroll
20	90	0.169	0.055	8	11	8	Charles City
20	90	0.207	0.068	7	10	8/12	Charlotte
30(900)	90	0.263	0.066	6	9	12	Charlottesville
20	90	0.214	0.060	8	11	8	Chesterfield
CS	90	0.166	0.053	6	8	12	Clarke
CS	90	0.223	0.069	6	8	12	Covington
CS	90	0.260	0.075	6	9	12	Craig
30(900)	90	0.192	0.057	7	9	12	Culpeper
25	90	0.274	0.068	7	10	12	Cumberland
15(2600)	90	0.303	0.089	6	8	12	Dickenson
20	90	0.189	0.060	8	11	12	Dinwiddie
15	90	0.159	0.060	8	11	8	Emporia
20	90	0.154	0.051	8	11	8	Essex
25	90	0.156	0.051	7	10	8	Fairfax
30(900)	90	0.171	0.054	7	9	8/12	Fauquier
25(2500)	90	0.275	0.081	6	9	12	Floyd
25	90	0.283	0.067	7	10	12	Fluvanna
25	90	0.234	0.076	6	9	12	Franklin
CS	90	0.170	0.054	5	8	8	Frederick
25(2500)	90	0.339	0.084	6	8	12	Giles
15	97	0.133	0.049	8	11	8	Gloucester
25	90	0.266	0.065	7	10	8/12	Goochland
20(2500)	90*	0.308	0.089	6	8	12	Grayson
30(900)	90	0.222	0.061	8	9	12	Greene
15	90	0.160	0.060	8	11	8	Greensville
20	90	0.188	0.070	7	10	8/12	Halifax
20	90	0.207	0.058	8	11	8	Hanover
CS	90	0.194	0.060	8	9	12	Harrisonburg
20	90	0.225	0.058	8	11	8	Henrico
20	90	0.225	0.078	6	9	8/12	Henry
CS	90	0.175	0.061	6	8	12	Highland
10	96	0.133	0.052	8	11	8	Isle of Wight
15	93	0.160	0.055	8	11	8	James City
20	90	0.158	0.052	8	11	8	King and Queen
25	90	0.166	0.053	8	11	8	King George
20	90	0.169	0.054	8	11	8	King William
20	97	0.133	0.048	8	11	8	Lancaster
15(2600)	90	0.390	0.102	6	8	12	Lee
CS	90	0.213	0.067	6	9	12	Lexington
30(900)	90	0.160	0.051	6	9	8/12	Loudoun
25	90	0.250	0.063	7	10	8/12	Louisa
20	90	0.196	0.066	7	10	8/12	Lunenburg
30(900)	90	0.208	0.060	6	9	12	Madison
30(900)	90	0.161	0.052	8	11	8/12	Manassas
30(900)	90	0.161	0.052	8	11	8/12	Manassas Park
20	90	0.219	0.077	6	9	12	Martinsville
15	103	0.124	0.048	8	11	8	Mathews
20	90	0.178	0.067	7	10	8	Mecklenburg
20	96	0.138	0.050	8	11	8	Middlesex
25(2500)	90	0.306	0.082	6	9	12	Montgomery
30(900)	90	0.255	0.068	6	9	12	Nelson
20	90	0.165	0.054	8	11	8	New Kent
10	**113**	0.109	0.045	8	11	8	Northampton
20	95	0.134	0.048	8	11	8	Northumberland

S	W	S_s	S_1	I1	I2	T_L	County Name
20	90	0.214	0.065	7	10	8/12	Nottoway
30(900)	90	0.223	0.061	7	9	12	Orange
CS	90	0.184	0.057	6	8	12	Page
20(2500)	90	0.245	0.081	6	9	12	Patrick
20	90	0.198	0.073	6	9	8/12	Pittsylvania
25	90	0.264	0.066	7	10	8/12	Powhatan
25	90	0.245	0.068	7	10	8/12	Prince Edward
20	90	0.181	0.057	8	11	8	Prince George
25	90	0.175	0.052	7	10	8/12	Prince William
25(2500)	90	0.336	0.086	6	8	12	Pulaski
30(900)	90	0.179	0.056	6	9	12	Rappahannock
20	90	0.148	0.050	8	11	8	Richmond
CS	90	0.265	0.068	6	9	12	Roanoke
CS	90	0.225	0.067	6	9	12	Rockbridge
CS	90	0.180	0.064	6	8	12	Rockingham
15(2600)	90	0.348	0.093	6	8	12	Russell
15(2600)	90	0.373	0.099	6	8	12	Scott
CS	90	0.173	0.056	6	8	12	Shenandoah
20(2500)	90*	0.339	0.091	6	8	12	Smyth
15	92	0.143	0.055	8	11	8	Southampton
25	90	0.197	0.056	7	10	8/12	Spotsylvania
25	90	0.170	0.053	7	10	8/12	Stafford
15	92	0.145	0.052	8	11	8	Surry
15	90	0.160	0.057	8	11	8	Sussex
20(2500)	90*	0.343	0.089	6	8	12	Tazewell
CS	90	0.172	0.055	6	8	12	Warren
15(2600)	90*	0.358	0.095	6	8	12	Washington
20	90	0.150	0.051	8	11	8	Westmoreland
20	98	0.140	0.051	8	11	8	Williamsburg
CS	90	0.167	0.054	6	8	12	Winchester
15(2600)	90	0.323	0.092	6	8	12	Wise
25(2500)	90*	0.337	0.089	6	8	12	Wythe
15	96	0.130	0.049	8	11	8	York
							WASHINGTON
20(1900)	85	0.337	0.109	4	6	16	Adams
CS	85	0.307	0.096	4	6	6/16	Asotin
15(1500)	85	0.536	0.161	4	6	16	Benton
CS	85	0.505	0.172	4	6	16	Chelan
CS	85*	1.119	0.468	4	6	16	Clallam
CS	85	0.911	0.323	4	6	16	Clark
CS	85	0.385	0.115	4	6	16	Columbia
15(400)	85*	0.862	0.342	4	6	16	Cowlitz
CS	85	0.481	0.161	4	6	16	Douglas
CS	85	0.330	0.108	4	6	16	Ferry
10(1200)	85	0.443	0.137	4	6	16	Franklin
CS	85	0.329	0.102	4	6	16	Garfield
CS	85	0.458	0.144	4	6	16	Grant
CS	85*	1.313	0.600	4	6	16	Grays Harbor
15(400)	85	1.305	0.483	4	6	6	Island
CS	85*	1.344	0.490	4	6	16	Jefferson
CS	85	1.447	0.489	4	6	6	King
15(400)	85	1.527	0.541	4	6	6	Kitsap
CS	85	0.540	0.184	4	6	6/16	Kittitas
CS	85	0.459	0.163	4	6	16	Klickitat
15(400)	85	1.012	0.396	4	6	6/16	Lewis
CS	85	0.350	0.109	4	6	16	Lincoln
20(200)	85	1.209	0.490	4	6	6/16	Mason
CS	85	0.527	0.155	4	6	16	Okanogan
CS	85*	1.366	0.650	4	6	16	Pacific
CS	85	0.383	0.109	4	6	16	Pend Oreille
15(400)	85	1.210	0.418	4	6	6	Pierce
20(200)	85	1.076	0.381	4	6	16	San Juan
CS	85	1.081	0.369	4	6	6/16	Skagit
CS	85	0.609	0.224	4	6	16	Skamania
15(400)	85	1.168	0.409	4	6	6/16	Snohomish
CS	85	0.402	0.113	4	6	16	Spokane
CS	85	0.310	0.099	4	6	16	Stevens
15(400)	85	1.157	0.434	4	6	6/16	Thurston
CS	85*	0.981	0.485	4	6	16	Wahkiakum
20(1900)	85	0.461	0.131	4	6	16	Walla Walla
CS	85	0.981	0.328	4	6	16	Whatcom
CS	85	0.311	0.098	4	6	16	Whitman
CS	85	0.520	0.175	4	6	16	Yakima
							WEST VIRGINIA
CS	90	0.142	0.055	5	7	12	Barbour
CS	90	0.167	0.052	5	8	12	Berkeley

S	W	S_s	S_1	I1	I2	T_L	County Name
20(2500)	90	0.211	0.072	6	8	12	Boone
CS	90	0.158	0.061	5	8	12	Braxton
25	90	0.122	0.050	5	7	12	Brooke
20	90	0.191	0.070	5	8	12	Cabell
25	90	0.149	0.059	5	7	12	Calhoun
25(2500)	90	0.173	0.064	5	8	12	Clay
20	90	0.136	0.055	5	7	12	Doddridge
20(2500)	90	0.217	0.070	6	8	12	Fayette
20	90	0.147	0.058	5	7	12	Gilmer
CS	90	0.158	0.055	5	8	12	Grant
CS	90	0.250	0.073	6	8	12	Greenbrier
CS	90	0.157	0.053	5	8	12	Hampshire
25	90	0.124	0.049	5	7	12	Hancock
CS	90	0.159	0.055	5	8	12	Hardy
CS	90	0.138	0.055	5	7	12	Harrison
25	90	0.162	0.063	5	7	12	Jackson
CS	90	0.165	0.052	6	8	12	Jefferson
20(2500)	90	0.187	0.068	5	8	12	Kanawha
CS	90	0.143	0.057	5	7	12	Lewis
20	90	0.194	0.070	5	8	12	Lincoln
20(2500)	90	0.233	0.076	6	8	12	Logan
20(2500)	90	0.318	0.084	6	8	12	McDowell
CS	90	0.135	0.053	5	7	12	Marion
20	90	0.123	0.051	5	7	12	Marshall
20	90	0.167	0.065	5	7	12	Mason
20(2500)	90	0.341	0.085	6	8	12	Mercer
CS	90	0.149	0.052	5	8	12	Mineral
20(2500)	90	0.243	0.079	6	8	12	Mingo
CS	90	0.134	0.052	5	7	12	Monongalia
25(2500)	90	0.295	0.078	6	8	12	Monroe
CS	90	0.167	0.052	5	8	12	Morgan
25(2500)	90	0.188	0.066	5	8	12	Nicholas
20	90	0.122	0.051	5	7	12	Ohio
CS	90	0.168	0.058	5	8	12	Pendelton
20	90	0.133	0.056	5	7	12	Pleasants
CS	90	0.186	0.064	5	8	12	Pocahontas
CS	90	0.138	0.053	5	7	12	Preston
20	90	0.178	0.067	5	8	12	Putnam
20(2500)	90	0.266	0.076	6	8	12	Raleigh
CS	90	0.149	0.056	5	8	12	Randolph
20	90	0.138	0.057	5	7	12	Ritchie
25	90	0.156	0.061	5	7	12	Roane
20(2500)	90	0.291	0.078	6	8	12	Summers
CS	90	0.139	0.054	5	7	12	Taylor
CS	90	0.146	0.055	5	8	12	Tucker
20	90	0.131	0.054	5	7	12	Tyler
CS	90	0.145	0.056	5	7	12	Upshur
20	90	0.199	0.072	5	8	12	Wayne
CS	90	0.170	0.062	5	8	12	Webster
20	90	0.127	0.053	5	7	12	Wetzel
25	90	0.147	0.059	5	7	12	Wirt
20	90	0.141	0.058	5	7	12	Wood
20(2500)	90	0.296	0.081	6	8	12	Wyoming
							WISCONSIN
40	90	0.073	0.035	5	7	12	Adams
60	90	0.057	0.018	5	6	4/12	Ashland
60	90	0.054	0.026	5	7	12	Barron
60	90	0.057	0.018	5	6	4	Bayfield
40	90	0.064	0.032	5	7	12	Brown
50	90	0.056	0.030	6	8	12	Buffalo
60	90	0.058	0.021	5	7	4/12	Burnett
35	90	0.074	0.035	5	7	12	Calumet
50	90	0.055	0.028	5	7	12	Chippewa
50	90	0.059	0.030	5	7	12	Clark
30	90	0.087	0.039	5	7	12	Columbia
35	90	0.074	0.040	6	8	12	Crawford
30	90	0.105	0.044	5	7	12	Dane
30	90	0.096	0.041	5	7	12	Dodge
50	90	0.059	0.030	5	6	12	Door
60	90	0.055	0.017	5	7	4	Douglas
50	90	0.055	0.028	6	8	12	Dunn
50	90	0.055	0.028	6	7	12	Eau Claire
60	90	0.058	0.025	5	6	12	Florence
35	90	0.082	0.037	5	7	12	Fond du Lac
60	90	0.057	0.026	5	6	12	Forest
30	90	0.085	0.043	6	8	12	Grant
30	90	0.118	0.049	6	8	12	Green
35	90	0.080	0.036	5	7	12	Green Lake
30	90	0.094	0.043	6	8	12	Iowa

S	W	S_s	S_1	I1	I2	T_L	County Name
60	90	0.059	0.018	5	6	4/12	Iron
50	90	0.061	0.031	6	7	12	Jackson
30	90	0.112	0.045	5	7	12	Jefferson
40	90	0.075	0.036	5	7	12	Juneau
30	90	0.124	0.049	5	7	12	Kenosha
40	90	0.063	0.032	5	7	12	Kewaunee
40	90	0.063	0.034	6	8	12	La Crosse
30	90	0.102	0.046	6	8	12	Lafayette
60	90	0.058	0.028	5	7	12	Langlade
60	90	0.057	0.028	5	7	12	Lincoln
35	90	0.071	0.034	5	7	12	Manitowoc
50	90	0.058	0.029	5	7	12	Marathon
60	90	0.058	0.029	5	6	12	Marinette
35	90	0.080	0.037	5	7	12	Marquette
50	90	0.060	0.029	5	7	12	Menominee
30	90	0.107	0.044	5	7	12	Milwaukee
40	90	0.065	0.034	6	8	12	Monroe
50	90	0.059	0.030	5	7	12	Oconto
60	90	0.057	0.026	5	6	12	Oneida
40	90	0.069	0.033	5	7	12	Outagamie
30	90	0.094	0.041	5	7	12	Ozaukee
50	90	0.055	0.029	6	8	12	Pepin
50	90	0.056	0.028	6	8	12	Pierce
50	90	0.056	0.025	6	7	12	Polk
50	90	0.063	0.031	5	7	12	Portage
60	90	0.055	0.025	5	7	12	Price
30	90	0.116	0.048	5	7	12	Racine
30	90	0.080	0.039	6	8	12	Richland
25	90	0.126	0.049	5	7	12	Rock
60	90	0.054	0.026	5	7	12	Rusk
50	90	0.057	0.027	6	8	12	St. Croix
30	90	0.087	0.039	5	7	12	Sauk
60	90	0.054	0.020	5	7	4/12	Sawyer
50	90	0.061	0.030	5	7	12	Shawano
35	90	0.080	0.037	5	7	12	Sheboygan
50	90	0.056	0.027	5	7	12	Taylor
50	90	0.058	0.030	6	8	12	Trempealeau
35	90	0.069	0.036	6	8	12	Vernon
60	90	0.058	0.025	5	6	12	Vilas
25	90	0.129	0.049	5	7	12	Walworth
60	90	0.054	0.023	5	7	4/12	Washburn
30	90	0.094	0.041	5	7	12	Washington
30	90	0.111	0.045	5	7	12	Waukesha
40	90	0.067	0.032	5	7	12	Waupaca
40	90	0.073	0.034	5	7	12	Waushara
35	90	0.074	0.035	5	7	12	Winnebago
50	90	0.065	0.032	5	7	12	Wood
							WYOMING
20(6600)	90	0.258	0.063	4	6	4	Albany
15(5500)	90*	0.277	0.070	4	6	4/6/8	Big Horn
20(4500)	90	0.287	0.061	4	6	4	Campbell
20(6600)	90	0.347	0.076	4	6	4	Carbon
15(5500)	90	0.366	0.072	4	6	4	Converse
25(4800)	90	0.169	0.047	4	6	4	Crook
15(5500)	90*	0.432	0.094	4	6	4/6/8	Fremont
15(5500)	90	0.171	0.050	4	6	4	Goshen
15(5500)	90	0.337	0.081	4	6	4/8	Hot Springs
15(5500)	90*	0.350	0.069	4	6	4	Johnson
20(6600)	90	0.195	0.054	4	6	4	Laramie
CS	90	0.571	0.209	4	6	6	Lincoln
15(5500)	90	0.370	0.077	4	6	4	Natrona
15(5500)	90	0.226	0.056	4	6	4	Niobrara
CS	90	0.299	0.101	4	6	6/8	Park
20(4500)	90	0.255	0.061	4	6	4	Platte
20(4500)	90*	0.270	0.059	4	6	4	Sheridan
CS	90*	0.404	0.134	4	6	6/8	Sublette
20(6600)	90*	0.361	0.096	4	6	4/6	Sweetwater
CS	90	1.104	0.396	4	6	6/8	Teton
CS	90	0.683	0.239	4	6	6	Uinta
15(5500)	90*	0.314	0.074	4	6	4/8	Washakie
20(4500)	90	0.190	0.050	4	6	4	Weston