



分析指南： 使用华盛顿小组简易功能问题集-增强版（WG-SS增强版） Stata语法创建残疾标识符

引言

华盛顿小组简易功能问题集-增强版（WG-SS增强版）Stata语法是从为华盛顿小组详细功能问题集（WG-ES）开发的语法中提取的。

WG-SS增强版的残疾识别基于纳入程度，即至少一个领域/问题编码为“非常困难”或“完全无法做到”，或者在焦虑或抑郁领域，为四分量表上最大程度的困难。

WG-SS增强版包括WG-SS加上“上半身机能”、“焦虑”和“抑郁”这三个领域：共计9个功能领域12个问题。

注：在进行数据分析时，使用标准的权重和估算技术。

Stata语法基于下表所示的变量标签。完整的WG-SS增强版模块包含的问题多于此表中显示的问题。残疾状况是在没有使用辅助技术或其他协助的情况下，从事基本的、普遍的活动时出现的困难程度来确定的。关于使用药物治疗焦虑或抑郁症状的问题不包括在用于语法的分析变量中。

只有以下这些问题/变量用于确定残疾标识符。

确保您使用的是相同的变量标签，或者修改Stata语法以反映在数据库中使用的变量标签。

WG-SS作为美国国民健康访谈调查(NHIS)的一部分实施。用于编制这些指南的数据来自2013年的NHIS。

《华盛顿小组实施文件》涵盖了华盛顿残疾统计小组(WG)开发的、用来在人口普查和调查中收集国际可比的残疾数据的多款工具。实施文件介绍了实施简易问题集、详细问题集、简易问题集-增强版、华盛顿小组/儿基会儿童功能模块（2-4岁和5-17岁）、华盛顿小组/国际劳工组织（ILO）劳动力调查残疾模块，以及其他华盛顿小组工具的最佳实践。主题包括翻译、问题规范、分析指南、用于分析的编程代码、分类工具的使用等等。

如需查找其他《华盛顿小组实施文件》和更多信息，请访问华盛顿小组网站：
<http://www.washingtongroup-disability.com/>。

NHIS用户注意： NHIS数据文件和文档中的变量名称可能与本文档中使用的变量名称不同；例如，在本文档中称为SC-SS的自理领域变量在NHIS数据文件和文档中称为UB_SS。

华盛顿小组详细问题集中的问题/领域	变量标签	回答模式
视力		
1.即使戴着眼镜，您是否也难以看清楚？	VIS_SS	1
沟通		
2.您是否难以使用日常语言和他人沟通，如理解他人或被他人理解？	COM_SS	1
听力		
3.即使使用助听器，您是否也难以听清楚？	HEAR_SS	1
认知		
4.您是否难以记住东西或集中注意力？	COG_SS	1
自理/上半身		
5.您是否难以自理生活，例如清洗全身或穿衣？	SC_SS	1
6.难以将一瓶2升的水从腰部举到齐眼高度？	UB_1	1
7.使用手和手指的困难程度	UB_2	1
行动		
8.您是否难以正常行走或上下阶梯？	MOB_SS	1
情感（焦虑）		
9.多久会出现感觉到担忧、紧张或焦虑的情况？	ANX_1	2
10.上一次感到担忧、紧张或焦虑时的感受程度？	ANX_3	3
情感（抑郁）		
11.您多久会出现感觉到抑郁的情况？	DEP_1	2
12.上一次您感到抑郁时，您感觉到有多抑郁？	DEP_3	3

注： 红色代表华盛顿小组简易问题集(WG-SS)。

红色加绿色的问题包括在WG-SS增强版中。

回答模式

	模式1	模式2	模式3*
1	没有困难	每天都有	有点
2	是，有点困难	每周都有	显著
3	是，非常困难	每月都有	介于有点和显著之间
4	完全无法做到	一年几次	
5		从未有过	
7	拒绝回答	拒绝回答	
8	不确定	不确定	
9	不知道	不知道	

*在下面的语法中，请注意回答模式为6（ANX_3和DEP_3）的题目被重新编码，以便将“介于”的数值放置在“有点”和“显著”之间。

下面介绍的Stata语法包括一些WG-SS增强版内容特有的元素。

首先，为包括多个问题（上半身机能、焦虑和抑郁）的功能领域确定特定领域单一标识符是很重要的。举个例子，上半身机能包括两个问题，每个问题都引出了具体而独特的动作：将一瓶水从腰部提升到齐眼（手臂/肩膀）高度的困难程度，以及使用手和手指的困难程度。对这两个问题进行分析和组合后，产生一个上半身指标，困难程度分为4级，从“1 - 困难程度低”到“4 - 困难程度高”——这与对单个WG-SS问题的分类回答没有什么不同：没有困难、有点困难、非常困难、完全无法做到。与上半身领域一样，其他WG-SS增强版领域“焦虑和抑郁”有不同的回答模式，不易“转化”为通常的华盛顿小组回答模式。对于这些功能领域，编制了一个相似的4分量表回答模式，并标注为1级到4级，1级表示困难程度最低，而4级表示困难程度最高。

其次，对各个领域指标进行评估，以确定纳入总体残疾标识符的适当分界点——以便根据残疾状况估计发生率和对结果指标进行分类。

注：

对于所有变量，编码(7)“拒绝回答”，(8)“不确定”，以及(9)“不知道”，被重新编码为“缺失”。

Stata WG-SS Enhanced Syntax Annotated with Output Tables

Actual Stata syntax is indented and are in **Bold** text.

NOTE: For data analysis, use your standard weighting and estimation techniques.

The syntax below produces **frequency distributions** on individual domain questions – **cross-tabulations** on multiple domain questions, and calculates INDICATOR variables for domains with multiple questions – for use in the determination of disability identifiers.

Step 1: Generate frequency distributions on each of the six domain variables.

VIS_SS is the WG-SS **Vision** question.

```
gen Vision=VIS_SS if inlist(VIS_SS, 1, 2, 3, 4)
replace Vision=. if inlist(VIS_SS, 7, 8, 9)
tabulate Vision
```

Vision: Degree of difficulty seeing

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No difficulty	13690	79.0	81.6	81.6
	Some difficulty	2708	15.6	16.2	97.8
	A lot of difficulty	333	1.9	2.0	99.8
	Cannot do at all	36	.2	.2	100.0
	Total	16767	96.8	100.0	
Missing	559	3.2			
Total	17326	100.0			

HEAR_SS is the WG-SS **Hearing** question.

```
gen Hearing=HEAR_SS if inlist(HEAR_SS, 1, 2, 3, 4)
replace Hearing=. if inlist(HEAR_SS, 7, 8, 9)
tabulate Hearing
```

Hearing: Degree of difficulty hearing

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No difficulty	13680	79.0	81.6	81.6
	Some difficulty	2753	15.9	16.4	98.0
	A lot of difficulty	310	1.8	1.8	99.9
	Cannot do at all	23	.1	.1	100.0
	Total	16766	96.8	100.0	
Missing	560	3.2			
Total	17326	100.0			

MOB_SS is the WG-SS **Mobility** question.

gen Mobility=MOB_SS **if inlist**(MOB_SS, 1, 2, 3, 4)
replace Mobility=. **if inlist**(MOB_SS, 7, 8, 9)
tabulate Mobility

Mobility: Degree of difficulty walking or climbing steps

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No difficulty	13424	77.5	80.1	80.1
	Some difficulty	2165	12.5	12.9	93.0
	A lot of difficulty	792	4.6	4.7	97.7
	Cannot do at all	380	2.2	2.3	100.0
	Total	16761	96.7	100.0	
Missing	565	3.3			
Total	17326	100.0			

COM_SS is the WG-SS **Communication** question.

gen Communication=COM_SS **if inlist**(COM_SS, 1, 2, 3, 4)
replace Communication=. **if inlist**(COM_SS, 7, 8, 9)
tabulate Communication

Communication: Degree of difficulty communicating using usual language

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No difficulty	15874	91.6	94.7	94.7
	Some difficulty	745	4.3	4.4	99.2
	A lot of difficulty	94	.5	.6	99.7
	Cannot do at all	43	.2	.3	100.0
	Total	16756	96.7	100.0	
Missing	570	3.3			
Total	17326	100.0			

SC_SS is the WG-SS **Self-care** question.

gen Self_Care=SC_SS **if inlist**(SC_SS, 1, 2, 3, 4)
replace Self_Care=. **if inlist**(SC_SS, 7, 8, 9)
tabulate Self_Care

Self_Care: Degree of difficulty with self-care

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No difficulty	16029	92.5	95.7	95.7
	Some difficulty	544	3.1	3.2	98.9
	A lot of difficulty	114	.7	.7	99.6
	Cannot do at all	68	.4	.4	100.0
	Total	16755	96.7	100.0	
Missing		571	3.3		
Total		17326	100.0		

COG_SS is the WG-SS **Cognition** question.

gen Cognition=COG_SS **if inlist**(COG_SS, 1, 2, 3, 4)
replace Cognition=. **if inlist**(COG_SS, 7, 8, 9)
tabulate Cognition

Cognition: Degree of difficulty remembering or concentrating

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No difficulty	13719	79.2	81.9	81.9
	Some difficulty	2632	15.2	15.7	97.6
	A lot of difficulty	382	2.2	2.3	99.9
	Cannot do at all	20	.1	.1	100.0
	Total	16753	96.7	100.0	
Missing		573	3.3		
Total		17326	100.0		

UPPER BODY

Step 2. Generate frequency distributions and cross-tabulations for Upper body domain questions and determine the Upper Body Indicator.

UB_1 is *Difficulty raising 2 liter bottle of water from waist to eye level.*

UB_2 is *Difficulty using hands and fingers*

gen UB_1_R=UB_1 **if inlist**(UB_1, 1,2,3,4)
replace UB_1_R=. **if inlist**(UB_1, 7,8,9)

gen UB_2_R=UB_2 **if inlist**(UB_2, 1,2,3,4)
replace UB_2_R=. **if inlist**(UB_2, 7,8,9)

First, calculate frequency distributions on the two extended set questions.

tabulate UB_1_R

UB_1_R: Diff raising 2 liter bottle of water from waist to eye level

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No difficulty	15677	90.5	93.6	93.6
	Some difficulty	743	4.3	4.4	98.0
	A lot of difficulty	167	1.0	1.0	99.0
	Cannot do at all	166	1.0	1.0	100.0
	Total	16753	96.7	100.0	
Missing		573	3.3		
Total		17326	100.0		

tabulate UB_2_R

UB_2_R: Degree of difficulty using hands and fingers

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No difficulty	15199	87.7	90.7	90.7
	Some difficulty	1229	7.1	7.3	98.1
	A lot of difficulty	255	1.5	1.5	99.6
	Cannot do at all	70	.4	.4	100.0
	Total	16753	96.7	100.0	
Missing		573	3.3		
Total		17326	100.0		

Step 3. Generate a cross-tabulation of the two Upper body Extended Set questions: UB_2_R and UB_1_R.

The syntax below produces a cross-tabulation of the two Extended Set questions: UB_1_R: *Difficulty raising a 2 liter bottle of water from waste to eye level* UB_2_R: *Difficulty using hands and fingers* to determine a single UPPER BODY INDICATOR (UB_INDICATOR).

tabulate UB_2_R UB_1_R

		UB_1_R: Diff raising 2 liter bottle of water from waist to eye level				
		No difficulty	Some difficulty	A lot of difficulty	Cannot do at all	Total
UB_2_R: Difficulty using hands and fingers	No difficulty	14786	309	58	44	15197
	Some difficulty	782	355	51	40	1228
	A lot of difficulty	98	73	51	33	255
	Cannot do at all	9	5	7	49	70
Total		15675	742	167	166	16750

Step 4. Create an UPPER BODY INDICATOR (UB_INDICATOR) based on the two additional upper body questions UB_2_R and UB_3_R.

Syntax below creates UB_INDICATOR based on the distribution in the cross-tabulation above.

```

gen UB_INDICATOR=4 if (UB_1_R==4 | UB_2_R==4)
replace UB_INDICATOR=3 if UB_INDICATOR ~4 & (UB_1_R==3 | UB_2_R==3)
replace UB_INDICATOR=2 if UB_INDICATOR ~4 & UB_INDICATOR~3 & ///
    (UB_1_R==2 | UB_2_R==2)
replace UB_INDICATOR=1 if UB_INDICATOR~4 & UB_INDICATOR~3 & ///
    UB_INDICATOR~2 & (UB_1_R==1 | UB_2_R==1)
tabulate UB_INDICATOR

```

		UB_INDICATOR			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	14790	85.4	88.3	88.3
	2.00	1448	8.4	8.6	96.9
	3.00	331	1.9	2.0	98.9
	4.00	187	1.1	1.1	100.0
	Total	16756	96.7	100.0	
Missing		570	3.3		
Total		17326	100.0		

ANXIETY

Step 5. Generate frequency distribution on ANX_1.

First, calculate frequency distributions on ANX_1: How often do you feel worried, nervous or anxious?

```

gen ANX_1_R=ANX_1 if inlist(ANX_1, 1,2,3,4,5)
replace ANX_1_R=. if inlist(ANX_1, 7,8,9)
tabulate ANX_1_R

```

		ANX_1_R: How often feel worried, nervous, or anxious?			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Daily	1632	9.4	9.8	9.8
	Weekly	1872	10.8	11.2	21.0
	Monthly	1558	9.0	9.3	30.4
	A few times a year	4898	28.3	29.4	59.7
	Never	6714	38.8	40.3	100.0
	Total	16674	96.2	100.0	
Missing		652	3.8		
Total		17326	100.0		

Step 6. The syntax below recodes ANX_3R into ANX_3Y

1) to create a NOT ASKED category based on those who responded NEVER to ANX_1_R and

2) to place "SOMEWHERE BETWEEN" numerically in-between "A LITTLE" and "A LOT".

```
gen ANX_3Y=1 if ANX_3R==1
replace ANX_3Y=3 if ANX_3R==2
replace ANX_3Y=2 if ANX_3R==3
replace ANX_3Y=. if inlist(ANX_3R, 7, 8, 9)
```

Recode ANX_3Y to 0 (not asked) if ANX_1 is 5 (Never)

```
replace ANX_3Y=0 if ANX_1==5
tabulate ANX_3Y
```

ANX_3Y: Level of feelings last time felt worried/nervous/anxious

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not asked	6714	38.8	40.3	40.3
	A little	5700	32.9	34.2	74.5
	In between a little and a lot	3076	17.8	18.5	92.9
	A lot	1176	6.8	7.1	100.0
	Total	16666	96.2	100.0	
Missing		660	3.8		
Total		17326	100.0		

Step 7. Generate a cross-tabulation of the anxiety Extended Set questions: ANX_1_R and ANX_3Y.

The syntax below produces a cross-tabulation of ANX_1_R: *How often you felt worried, nervous or anxious* (a measure of frequency) and ANX_3Y: *The level of those feeling the last time you felt worried, nervous or anxious* (a measure of intensity) – used to determine a single ANXIETY INDICATOR (ANX_INDICATOR).

```
tabulate ANX_3Y ANX_1_R
```

ANX_3Y: Level of feelings last time felt worried, nervous or anxious	ANX_1_R: How often feel worried, nervous or anxious?					Total
	Daily	Weekly	Monthly	A Few Times A Year	Never	
Not asked	0	0	0	0	6714	6714
A little	489	887	897	3417	0	5690
In between a little and a lot	589	725	535	1221	0	3070
A lot	548	256	123	248	0	1175
Total	1626	1868	1555	4886	6714	16649

Step 8. Create an ANXIETY INDICATOR (ANX_INDICATOR) based on the two anxiety questions ANX_1_R and ANX_3Y.

Syntax below creates ANX_INDICATOR based on the distribution in the cross-tabulation above.

```
gen ANX_INDICATOR=1 if (ANX_3Y <= 4 & (ANX_1_R==4 | ANX_1_R==5))
replace ANX_INDICATOR=2 if ((ANX_1_R==3) | (ANX_1_R < 3 & ANX_3Y==1) | ///
(ANX_1_R==2 & ANX_3Y==2))
replace ANX_INDICATOR=3 if ((ANX_1_R==1 & ANX_3Y==2) | ///
(ANX_1_R==2 & ANX_3Y==3))
replace ANX_INDICATOR=4 if (ANX_1_R==1 & ANX_3Y==3)
replace ANX_INDICATOR=. if (missing(ANX_1_R) | missing(ANX_3Y))
tabulate ANX_INDICATOR
```

		ANX_INDICATOR			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	11600	67.0	69.7	69.7
	2.00	3656	21.1	22.0	91.6
	3.00	845	4.9	5.1	96.7
	4.00	548	3.2	3.3	100.0
	Total	16649	96.1	100.0	
Missing		677	3.9		
Total		17326	100.0		

DEPRESSION

Step 9. Generate frequency distribution on DEP_1.

First, calculate frequency distributions on DEP_1: *How often do you feel depressed?*

```
gen DEP_1_R=DEP_1 if inlist(DEP_1, 1,2,3,4,5)
replace DEP_1_R=. if inlist(DEP_1, 7,8,9)
tabulate DEP_1_R
```

		DEP_1_R: How often do you feel depressed?			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Daily	756	4.4	4.5	4.5
	Weekly	926	5.3	5.6	10.1
	Monthly	1038	6.0	6.2	16.3
	A few times a year	4012	23.2	24.1	40.4
	Never	9929	57.3	59.6	100.0
	Total	16661	96.2	100.0	
Missing		665	3.8		
Total		17326	100.0		

Step 10. The syntax below recodes DEP_3R into DEP_3Y to place “SOMEWHERE BETWEEN” numerically in-between “A LITTLE” and “A LOT”. It also creates the category NOT ASKED, if DEP_1 is NEVER (1)

```
gen DEP_3Y=1 if DEP_3R==1
replace DEP_3Y=3 if DEP_3R==2
replace DEP_3Y=2 if DEP_3R==3
replace DEP_3Y=. if inlist(DEP_3R, 7,8,9)

replace DEP_3Y=0 if DEP_1==5
tabulate DEP_3Y
```

DEP_3Y: Level of feelings last time felt depressed

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not asked	9929	57.3	59.6	59.6
	A little	3775	21.8	22.7	82.3
	In between a little and a lot	2016	11.6	12.1	94.4
	A lot	935	5.4	5.6	100.0
	Total	16655	96.1	100.0	
Missing		671	3.9		
Total		17326	100.0		

Step 11. Generate a cross-tabulation of the depression Extended Set questions: DEP_1_R and DEP_3Y.

The syntax below produces a cross-tabulation of DEP_1_R: *How often do you feel depressed* (a measure of frequency) and DEP_3Y: *The level of those feeling the last time you felt depressed* (a measure of intensity) – used to determine a single DEPRESSION INDICATOR (DEP_INDICATOR).

```
tabulate DEP_3Y DEP_1_R
```

DEP_3Y: Level of feelings last time felt depressed	DEP_1_R: How often do you feel depressed?					Total
	Daily	Weekly	Monthly	A Few Times A Year	Never	
Not asked	0	0	0	0	9929	9929
A little	161	346	548	2708	0	3763
In between a little and a lot	209	384	378	1042	0	2013
A lot	381	191	112	248	0	932
Total	751	921	1038	3998	9929	16637

Step 12. Create a DEPRESSION INDICATOR (DEP_INDICATOR) based on the two depression questions DEP_1_R and DEP_3Y.

Syntax below creates DEP_INDICATOR based on the distribution in the cross-tabulation above.

```

gen DEP_INDICATOR=. if (missing(DEP_1_R) | missing(DEP_3Y))
replace DEP_INDICATOR=1 if (DEP_3Y <= 4 & (DEP_1_R==4 | DEP_1_R==5))
replace DEP_INDICATOR=2 if ((DEP_1_R==3) | (DEP_1_R < 3 & DEP_3Y==1) | ///
(DEP_1==2 & DEP_3Y==2))
replace DEP_INDICATOR=3 if ((DEP_1_R==1 & DEP_3Y==2) | ///
(DEP_1_R==2 & DEP_3Y==3))
replace DEP_INDICATOR=4 if (DEP_1_R==1 & DEP_3Y==3)
tabulate DEP_INDICATOR

```

DEP_INDICATOR

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	13927	80.4	83.7	83.7
	2.00	1929	11.1	11.6	95.3
	3.00	400	2.3	2.4	97.7
	4.00	381	2.2	2.3	100.0
	Total	16637	96.0	100.0	
Missing		689	4.0		
Total		17326	100.0		

Creating Disability Status Indicator for the WG-SS Enhanced

WG-SS Enhanced: WG-SS + Upper Body-indicator + Anxiety (level 4) + Depression (level 4)

The syntax below calculates the WG Short Set ENHANCED Disability Indicator (**SS_E**) based on the 12 questions at the recommended cut-off. The level of inclusion is: at least 1 domain/question is coded A LOT OF DIFFICULTY or CANNOT DO AT ALL for the six short set question; severity levels 3 or 4 for the Upper body-Indicators; and severity level 4 for Anxiety- and Depression-Indicators.

```
gen SS_E=2
replace SS_E=. if (missing(Vision) & ///
missing(Vearing) & ///
missing(Mobility) & ///
missing(Communication) & ///
missing(SELF_CARE) & ///
missing(Cognition) & ///
missing(UB_INDICATOR) & ///
missing(ANX_INDICATOR) & ///
missing(DEP_INDICATOR) )
replace SS_E_3=1 if ((Vision==3 | Vision==4) | ///
(Hearing==3 | Hearing==4) | ///
(Mobility==3 | Mobility==4) | ///
(Communication==3 | Communication==4) | ///
(SELF_CARE==3 | SELF_CARE==4) | ///
(Cognition==3 | Cognition==4) | ///
(UB_INDICATOR==3 | UB_INDICATOR==4) | ///
ANX_INDICATOR==4 | DEP_INDICATOR==4)
tabulate SS_E
```

SS_E: WG-SS Enhanced Disability Indicator based on 9 domains and 12 questions

		Frequency	Percent	Valid Percent	Weighted Estimate
Valid	WITHOUT DISABILITY	14393	83.1	85.8	87.7
	WITH DISABILITY	2384	13.8	14.2	12.3
	Total	16777	96.9	100.0	
Missing		549	3.2		
Total		17326	100.1		