

Technical Note No. 8

Note on the Years of Schooling Variable



NOTE ON THE YEARS OF SCHOOLING VARIABLE

Background:

In the first round of the National Social Protection Monitoring Survey (NSPMS) (Baseline), individuals were asked about the highest level of education reached and the highest grade reached successfully, as written below:

ROUND 1 (BASELINE)	
For those currently and previously enrolled	
Level	Grade
What was the highest level of education (name) reached?	What was the highest grade that (name) reached successfully?

Level and grade are the key variables used to construct the completed years of schooling achieved by each individual. However, the format of the question creates some ambiguity as it does not clearly define whether or not “reached successfully” signifies completion of the grade. According to the NSPMS manual, it is implied that those currently enrolled should answer the level and grade they are enrolled at the time of the survey, which does not mean completed, as shown below:

NSPMS Manual:

Ex.1: If someone is in the second year of his bachelor’s degree at university, the highest level of education (name) reached is ‘07 – Bachelors’ in Q5 and write ‘02 – Second’ in Q6.

Ex.2: If someone is in the fifth year of his basic education, write ‘03 – Basic’ in Q5 and ‘05 – Fifth’ in Q6.”

There is no explicit instruction for those who are not currently enrolled, but had been at some point before the survey. They might answer both the last level and grade reached (but not completed) or the last level and grade completed. Depending on the way they answer this question, the number of years of schooling achieved will be different.

To reduce the ambiguity of results, IPC, Interaction, and UNICEF agreed to repeat the question in the Midline 1 data collection, with distinctions made between those currently enrolled and those previously enrolled, as shown below:

ROUND 2 (MIDLINE 1)			
For those currently enrolled		For those previously enrolled	
Level	Grade	Level	Grade
What is the level of education the (name) is currently enrolled in?	What is the grade in which the (name) is currently enrolled?	What was the highest level of education the (name) reached?	What is the highest grade the (name) completed successfully?

Creating clear differentiations in enrollment of individuals allows us to accurately capture the number of completed years of schooling. For example, if someone previously enrolled answers that he/she has successfully completed the fourth grade of basic education, we are sure that he/she has completed four years of schooling instead of three.

For this reason, we made a decision of using the information of grade and level collected in the Midline 1 to generate the variable years of schooling, which presents the following distribution:

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Completed years of schooling	Freq.	Percent	Cum.
no schooling	16,920	31.63	31.63
1 year of schooling	1,748	3.27	34.90
2 years of schooling	2,019	3.77	38.67
3 years of schooling	2,274	4.25	42.92
4 years of schooling	2,333	4.36	47.28
5 years of schooling	2,296	4.29	51.57
6 years of schooling	2,832	5.29	56.87
7 years of schooling	1,619	3.03	59.90
8 years of schooling	1,490	2.79	62.68
9 years of schooling	1,567	2.93	65.61
10 years of schooling	844	1.58	67.19
11 years of schooling	761	1.42	68.61
12 years of schooling	2,451	4.58	73.19
13 years of schooling	168	0.31	73.51
14 years of schooling	404	0.76	74.26
15 years of schooling	191	0.36	74.62
16+ years of schooling	635	1.19	75.81
non-standard: Quran & Literacy	881	1.65	77.45
not applicable: child aged 4 or less	6,621	12.38	89.83
.	5,441	10.17	100.00
Total	53,495	100.00	

The 5,441 missing values generated refer to the absence of information in the grade and/or level questions in the Midline 1 of those individuals who were only present in the Baseline survey, and those new members who joined the household in the Midline 2 and the Endline surveys.

With the aim of minimizing missing information in the years of schooling variable, it was necessary to implement a step-by-step imputation procedure. All steps are detailed below.

Step 1. Using information collected in the Midline 2

If years of schooling is missing in Midline 1, we input the information obtained in Midline 2 (890 individuals), as in this round the same questions about level and grade were asked for all the individuals again. We also used information obtained in Midline 2 to replace 102 individuals coded as “non-standard education” in Midline 1, but with information about years of schooling in Midline 2.

Step 2. Using information collected in the Baseline

If years of schooling is missing either in Midline 1 or in Midline 2, we input information collected in Baseline (3,566 individuals). For that, we made the assumption that those currently enrolled answered the level and grade currently attended; and those previously enrolled answered the level and grade completed successfully;

Step 3: Using information collected in the Endline

Finally, for the new members in the Endline, we input information collected in the Endline (471 individuals). The same assumption for those currently and previously enrolled was made here, as the questions about level and grade in the Endline was not split between currently and previously enrolled.

After all the imputation procedures, we found the following distribution of the years of schooling:

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Completed years of schooling	Freq.	Percent	Cum.
no schooling	18,456	34.50	34.50
1 year of schooling	1,872	3.50	38.00
2 years of schooling	2,168	4.05	42.05
3 years of schooling	2,443	4.57	46.62
4 years of schooling	2,494	4.66	51.28
5 years of schooling	2,482	4.64	55.92
6 years of schooling	3,140	5.87	61.79
7 years of schooling	1,805	3.37	65.16
8 years of schooling	1,650	3.08	68.25
9 years of schooling	1,769	3.31	71.56
10 years of schooling	953	1.78	73.34
11 years of schooling	875	1.64	74.97
12 years of schooling	2,936	5.49	80.46
13 years of schooling	189	0.35	80.82
14 years of schooling	480	0.90	81.71
15 years of schooling	218	0.41	82.12
16+ years of schooling	686	1.28	83.40
non-standard: Quran & Literacy	814	1.52	84.92
not applicable: child aged 4 or less	7,551	14.12	99.04
.	514	0.96	100.00
Total	53,495	100.00	

Step 4. Checking inconsistencies

In the fourth step, we checked inconsistencies between age and years of schooling. The official age at which children should start at school in Yemen is six years of age. As such, a child aged eight who entered in school at age six should have completed two years of schooling, if he/she didn't repeat a grade or drop out. We decided to convert the years of schooling to missing for all individuals who attained three or more years of education beyond what regular students should accomplish¹. In the example above, if the child should have completed two years but responded that he or she has completed five years, we replaced his/her information of years of schooling to missing (see red numbers in the Graph 1). We kept the responses from those who stated they had two years of schooling beyond the correct one as students may have entered school earlier and/or have a birthday at the beginning of the school year. In total, 96 individuals were replaced to missing.

¹ See the correct number of schooling a regular child should attain following the gray diagonal in Graph 1.

Graph 1. Inconsistency check between age and years of schooling

Age	Years of schooling																	Total	Inconsistencies
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16+		
5	933	3	2	1		1							1					941	5
6	1531	60	8	1	2	1	1	1		1								1606	7
7	1296	324	52	10	4	3				1			1					1691	9
8	732	542	278	58	9	2	3	2	1	3			1	1				1632	13
9	306	313	434	230	53	13	3	1	2	1			1					1357	8
10	285	200	411	452	240	61	12	4	1	3								1669	8
11	153	75	162	293	340	179	44	4	1	1			1					1254	4
12	191	62	136	216	346	427	196	35	13	6	1		1				1	1632	10
13	178	27	70	146	194	276	320	155	46	9	1		5					1427	6
14	159	17	54	92	105	167	259	240	131	39	2		3	3		1		1272	7
15	227	18	52	71	131	155	214	213	251	146	43	10	16	1				1548	17
16	213	20	32	73	87	103	141	129	159	215	104	28	10	1				1315	1
17	172	5	36	45	52	83	111	85	108	195	153	85	35					1165	0
18	270	17	39	65	76	115	152	103	96	150	148	180	170	3	1			1585	0
19	185	10	20	33	58	67	92	62	51	86	68	81	218	9	1	2	1	1044	1
Total	6831	1693	1786	1786	1697	1653	1548	1034	860	856	520	393	458	14	3	4	2	21138	96

Final distribution of years of schooling

After all these changes, the final distribution of the years of schooling is:

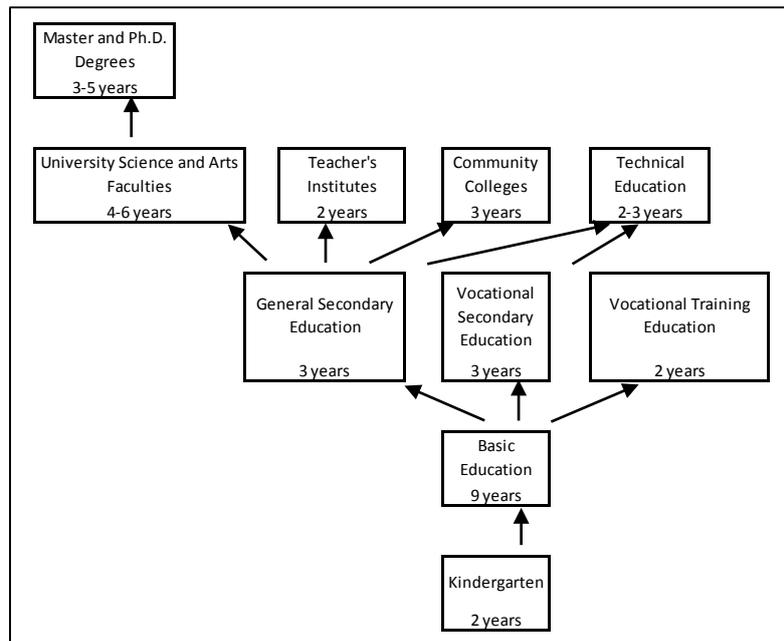
. tab yrschl, m

Completed years of schooling	Freq.	Percent	Cum.
no schooling	18,456	34.50	34.50
1 year of schooling	1,872	3.50	38.00
2 years of schooling	2,166	4.05	42.05
3 years of schooling	2,441	4.56	46.61
4 years of schooling	2,488	4.65	51.26
5 years of schooling	2,475	4.63	55.89
6 years of schooling	3,133	5.86	61.75
7 years of schooling	1,797	3.36	65.11
8 years of schooling	1,645	3.08	68.18
9 years of schooling	1,753	3.28	71.46
10 years of schooling	951	1.78	73.23
11 years of schooling	866	1.62	74.85
12 years of schooling	2,911	5.44	80.30
13 years of schooling	188	0.35	80.65
14 years of schooling	479	0.90	81.54
15 years of schooling	216	0.40	81.95
16+ years of schooling	683	1.28	83.22
non-standard: Quran & Literacy	814	1.52	84.74
not applicable: child aged 4 or less	7,551	14.12	98.86
.	610	1.14	100.00
Total	53,495	100.00	

The rationale behind of the construction of years of schooling

According to UNESCO (2011), the structure and organization of the educational system in Yemen can be summarized in Chart 1:

Chart 1. Yemen educational system



Source: UNESCO (2011), p. 5.

In the (NSPMS), the questions and categories are designed to capture the structure of the system as shown below:

For those currently enrolled		For those previously enrolled	
Level	Grade	Level	Grade
What is the level of education the (name) is currently enrolled in?	What is the grade in which the (name) is currently enrolled?	What was the highest level of education the (name) reached?	What is the highest grade the (name) completed successfully?
0 = Pre-school or kindergarten 1 = Primary 2 = Unified 3 = Basic 4 = Diploma before secondary 5 = Secondary 6 = Post secondary diploma 7 = Bachelors 8 = Postgraduate 9 = Literacy classes 10 = Quran religious classes 98 = DK	0 = Pre-school or kindergarten 1 = First 2 = Second 3 = Third 4 = Fourth 5 = Fifth 6 = Sixth 7 = Seventh 8 = Eight 9 = Ninth 10 = Non-graded course (non-graded formal education) 98 = DK or DR	0 = Pre-school or kindergarten 1 = Primary 2 = Unified 3 = Basic 4 = Diploma before secondary 5 = Secondary 6 = Post secondary diploma 7 = Bachelors 8 = Postgraduate 9 = Literacy classes 10 = Quran religious classes 98 = DK	0 = Pre-school or kindergarten 1 = First 2 = Second 3 = Third 4 = Fourth 5 = Fifth 6 = Sixth 7 = Seventh 8 = Eight 9 = Ninth 10 = Non-graded course (non-graded formal education) 98 = DK or DR

Source: NSPMS, Midline Questionnaire.

Pre-school or kindergarten is listed for children who attend some form of organized learning or early childhood education program, whether or not such a program is considered part of the school system.

Programs offering only babysitting or childcare are not included in this category.² All the children included in this category have zero years of schooling.

Levels *Primary*, *Unified* and *Basic* are equivalent with their different names reflecting changes in the education system over the past years.³ The years of schooling of those included in these categories range from zero to nine, depending on the grade they are enrolled (individuals currently enrolled) or the grade completed successfully (individuals previously enrolled). Ex.1: if someone is currently enrolled in the first grade of basic education, he or she has zero years of education completed. Ex.2: if someone who is no longer enrolled in school but has successfully completed the first grade of basic education, he or she has one year of education completed.

Diploma before secondary is part of formal education for children aged twelve to fourteen years old.⁴ This level is equivalent to lower secondary education. The years of schooling of those included in this category range from six to nine, depending on the grade (1st to 3rd, which is equivalent to a year) students are enrolled or the grade completed successfully. Ex.3: if someone is currently enrolled in the first grade of diploma before secondary education, he or she has six years of education completed. Ex.4: if someone who is no longer enrolled in school has successfully completed the first grade of diploma before secondary education, he or she has seven years of education completed.

Post-secondary diploma is part of formal education for those who finished secondary education and want to specialize as teachers.⁵ This level is also used to describe technical institutes that offer two-and-three year programmes leading to the qualification of technician (UNESCO, 2011). The years of schooling of those included in this category range from twelve to fifteen, depending on the grade/year (1st to 3rd) students are enrolled or the grade completed successfully. Ex.5: if someone is currently enrolled in the first grade of post-secondary education, he or she has completed twelve years of schooling. Ex.6: if someone who is no longer enrolled in school has successfully completed the first grade of post-secondary diploma, he or she has completed twelve years of schooling.

Literacy classes and Quran are not part of the standard curriculum, although the former is linked to formal education: one year of literacy classes is equivalent to the 3rd grade of basic education; two years of literacy classes are equivalent to the 6th grade of basic education.⁶ Religious classes are open to everyone interested in learning Quran, and individuals enrolled in Quran classes can also be enrolled in formal education. Following the recommendation of the UNICEF education specialists in Yemen, those individuals included in one of these categories should be labeled as non-formal students. Therefore, it is not possible to build years of schooling for them.

² See NSPMS Manual, p. 12.

³ See NSPMS Manual, p. 12.

⁴ According to UNICEF Education Specialists in Yemen.

⁵ According to UNICEF Education Specialists in Yemen.

⁶ According to UNICEF Education Specialists in Yemen.

ANNEX 1 – Syntax in Stata format

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*****
** YEARS OF SCHOOLING - ROUND 1 (BASELINE)
*****

** No schooling

* Currently enrolled
gen yrschl=.
replace yrschl=0 if p3_q_5==0 & p3_q_2==1
replace yrschl=0 if p3_q_6==0 & p3_q_2==1
replace yrschl=0 if p3_q_5==1 & p3_q_6==1 & p3_q_2==1
replace yrschl=0 if p3_q_5==2 & p3_q_6==1 & p3_q_2==1
replace yrschl=0 if p3_q_5==3 & p3_q_6==1 & p3_q_2==1

* Previously enrolled
replace yrschl=0 if p3_q_5==0 & p3_q_2==2
replace yrschl=0 if p3_q_6==0 & p3_q_2==2

* Never enrolled
replace yrschl=0 if p3_q_2==3

** 1 year of schooling

* Currently enrolled
replace yrschl=1 if p3_q_5==1 & p3_q_6==2 & p3_q_2==1
replace yrschl=1 if p3_q_5==2 & p3_q_6==2 & p3_q_2==1
replace yrschl=1 if p3_q_5==3 & p3_q_6==2 & p3_q_2==1

* Previously enrolled
replace yrschl=1 if p3_q_5==1 & p3_q_6==1 & p3_q_2==2
replace yrschl=1 if p3_q_5==2 & p3_q_6==1 & p3_q_2==2
replace yrschl=1 if p3_q_5==3 & p3_q_6==1 & p3_q_2==2

** 2 years of schooling

* Currently enrolled
replace yrschl=2 if p3_q_5==1 & p3_q_6==3 & p3_q_2==1
replace yrschl=2 if p3_q_5==2 & p3_q_6==3 & p3_q_2==1
replace yrschl=2 if p3_q_5==3 & p3_q_6==3 & p3_q_2==1

* Previously enrolled
replace yrschl=2 if p3_q_5==1 & p3_q_6==2 & p3_q_2==2
replace yrschl=2 if p3_q_5==2 & p3_q_6==2 & p3_q_2==2
replace yrschl=2 if p3_q_5==3 & p3_q_6==2 & p3_q_2==2

** 3 year of schooling

* Currently enrolled
replace yrschl=3 if p3_q_5==1 & p3_q_6==4 & p3_q_2==1
replace yrschl=3 if p3_q_5==2 & p3_q_6==4 & p3_q_2==1
replace yrschl=3 if p3_q_5==3 & p3_q_6==4 & p3_q_2==1

* Previously enrolled
replace yrschl=3 if p3_q_5==1 & p3_q_6==3 & p3_q_2==2
replace yrschl=3 if p3_q_5==2 & p3_q_6==3 & p3_q_2==2
replace yrschl=3 if p3_q_5==3 & p3_q_6==3 & p3_q_2==2

** 4 years of schooling

* Currently enrolled
replace yrschl=4 if p3_q_5==1 & p3_q_6==5 & p3_q_2==1
replace yrschl=4 if p3_q_5==2 & p3_q_6==5 & p3_q_2==1
replace yrschl=4 if p3_q_5==3 & p3_q_6==5 & p3_q_2==1

* Previously enrolled
replace yrschl=4 if p3_q_5==1 & p3_q_6==4 & p3_q_2==2
replace yrschl=4 if p3_q_5==2 & p3_q_6==4 & p3_q_2==2
replace yrschl=4 if p3_q_5==3 & p3_q_6==4 & p3_q_2==2

** 5 years of schooling

* Currently enrolled
replace yrschl=5 if p3_q_5==1 & p3_q_6==6 & p3_q_2==1
replace yrschl=5 if p3_q_5==2 & p3_q_6==6 & p3_q_2==1
replace yrschl=5 if p3_q_5==3 & p3_q_6==6 & p3_q_2==1
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* Previously enrolled
replace yrschl=5 if p3_q_5==1 & p3_q_6==5 & p3_q_2==2
replace yrschl=5 if p3_q_5==2 & p3_q_6==5 & p3_q_2==2
replace yrschl=5 if p3_q_5==3 & p3_q_6==5 & p3_q_2==2

** 6 years of schooling

* Currently enrolled
replace yrschl=6 if p3_q_5==1 & p3_q_6==7 & p3_q_2==1
replace yrschl=6 if p3_q_5==2 & p3_q_6==7 & p3_q_2==1
replace yrschl=6 if p3_q_5==3 & p3_q_6==7 & p3_q_2==1
replace yrschl=6 if p3_q_5==4 & p3_q_6==1 & p3_q_2==1

* Previously enrolled
replace yrschl=6 if p3_q_5==1 & p3_q_6==6 & p3_q_2==2
replace yrschl=6 if p3_q_5==2 & p3_q_6==6 & p3_q_2==2
replace yrschl=6 if p3_q_5==3 & p3_q_6==6 & p3_q_2==2

** 7 years of schooling

* Currently enrolled
replace yrschl=7 if p3_q_5==1 & p3_q_6==8 & p3_q_2==1
replace yrschl=7 if p3_q_5==2 & p3_q_6==8 & p3_q_2==1
replace yrschl=7 if p3_q_5==3 & p3_q_6==8 & p3_q_2==1
replace yrschl=7 if p3_q_5==4 & p3_q_6==2 & p3_q_2==1

* Previously enrolled
replace yrschl=7 if p3_q_5==1 & p3_q_6==7 & p3_q_2==2
replace yrschl=7 if p3_q_5==2 & p3_q_6==7 & p3_q_2==2
replace yrschl=7 if p3_q_5==3 & p3_q_6==7 & p3_q_2==2
replace yrschl=7 if p3_q_5==4 & p3_q_6==1 & p3_q_2==2

** 8 years of schooling

* Currently enrolled
replace yrschl=8 if p3_q_5==1 & p3_q_6==9 & p3_q_2==1
replace yrschl=8 if p3_q_5==2 & p3_q_6==9 & p3_q_2==1
replace yrschl=8 if p3_q_5==3 & p3_q_6==9 & p3_q_2==1
replace yrschl=8 if p3_q_5==4 & (p3_q_6>=3 & p3_q_6<=9) & p3_q_2==1

* Previously enrolled
replace yrschl=8 if p3_q_5==1 & p3_q_6==8 & p3_q_2==2
replace yrschl=8 if p3_q_5==2 & p3_q_6==8 & p3_q_2==2
replace yrschl=8 if p3_q_5==3 & p3_q_6==8 & p3_q_2==2
replace yrschl=8 if p3_q_5==4 & p3_q_6==2 & p3_q_2==2

** 9 years of schooling

* Currently enrolled
replace yrschl=9 if p3_q_5==5 & p3_q_6==1 & p3_q_2==1

* Previously enrolled
replace yrschl=9 if p3_q_5==1 & p3_q_6==9 & p3_q_2==2
replace yrschl=9 if p3_q_5==2 & p3_q_6==9 & p3_q_2==2
replace yrschl=9 if p3_q_5==3 & p3_q_6==9 & p3_q_2==2
replace yrschl=9 if p3_q_5==4 & (p3_q_6>=2 & p3_q_6<=9) & p3_q_2==2

** 10 years of schooling

* Currently enrolled
replace yrschl=10 if p3_q_5==5 & p3_q_6==2 & p3_q_2==1

* Previously enrolled
replace yrschl=10 if p3_q_5==5 & p3_q_6==1 & p3_q_2==2

** 11 years of schooling

* Currently enrolled
replace yrschl=11 if p3_q_5==5 & (p3_q_6>=3 & p3_q_6<=9) & p3_q_2==1

* Previously enrolled
replace yrschl=11 if p3_q_5==5 & p3_q_6==2 & p3_q_2==2

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** 12 years of schooling - Complete Secondary

* Currently enrolled
replace yrschl=12 if p3_q_5==7 & p3_q_6==1 & p3_q_2==1
replace yrschl=12 if p3_q_5==6 & p3_q_6==1 & p3_q_2==1

* Previously enrolled
replace yrschl=12 if p3_q_5==5 & (p3_q_6>=3 & p3_q_6<=9) & p3_q_2==2

** 13 years of schooling

* Currently enrolled
replace yrschl=13 if p3_q_5==7 & p3_q_6==2 & p3_q_2==1
replace yrschl=13 if p3_q_5==6 & p3_q_6==2 & p3_q_2==1

* Previously enrolled
replace yrschl=13 if p3_q_5==7 & p3_q_6==1 & p3_q_2==2
replace yrschl=13 if p3_q_5==6 & p3_q_6==1 & p3_q_2==2

** 14 years of schooling

* Currently enrolled
replace yrschl=14 if p3_q_5==7 & p3_q_6==3 & p3_q_2==1
replace yrschl=14 if p3_q_5==6 & (p3_q_6>=3 & p3_q_6<=9) & p3_q_2==1

* Previously enrolled
replace yrschl=14 if p3_q_5==7 & p3_q_6==2 & p3_q_2==2
replace yrschl=14 if p3_q_5==6 & p3_q_6==2 & p3_q_2==2

** 15 years of schooling

* Currently enrolled
replace yrschl=15 if p3_q_5==7 & p3_q_6==4 & p3_q_2==1

* Previously enrolled
replace yrschl=15 if p3_q_5==7 & p3_q_6==3 & p3_q_2==2
replace yrschl=15 if p3_q_5==6 & (p3_q_6>=3 & p3_q_6<=9) & p3_q_2==2

** 16+ years of schooling

* Currently enrolled
replace yrschl=16 if p3_q_5==7 & (p3_q_6>=5 & p3_q_6<=9) & p3_q_2==1
replace yrschl=16 if p3_q_5==8 & p3_q_2==1

* Previously enrolled
replace yrschl=16 if p3_q_5==7 & (p3_q_6>=4 & p3_q_6<=9) & p3_q_2==2
replace yrschl=16 if p3_q_5==8 & p3_q_2==2

** Non-standard: Literacy class & Quran
replace yrschl=77 if p3_q_5==9 | p3_q_5==10

** Not applicable
replace yrschl=88 if p2_q_05_y<=4

** LABELS

label variable yrschl "Completed years of schooling"
label define yrschl 0 "no schooling" 1 "1 year of schooling" 2 "2 years of schooling" ///
3 "3 years of schooling" 4 "4 years of schooling" ///
5 "5 years of schooling" 6 "6 years of schooling" ///
7 "7 years of schooling" 8 "8 years of schooling" ///
9 "9 years of schooling" 10 "10 years of schooling" ///
11 "11 years of schooling" 12 "12 years of schooling" ///
13 "13 years of schooling" 14 "14 years of schooling" ///
15 "15 years of schooling" 16 "16+ years of schooling" ///
77 "non-standard: Quran & Literacy" 88 "not applicable: child aged 4 or less"

label values yrschl yrschl

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```

*****
** YEARS OF SCHOOLING - ROUNDS 2 and 3 (MIDLINE)
*****

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** No schooling

* Currently enrolled
gen yrschl2=.
replace yrschl2=0 if r2_p3_q_5_a==0
replace yrschl2=0 if r2_p3_q_6_a==0
replace yrschl2=0 if (r2_p3_q_5_a==1 & r2_p3_q_6_a==1)
replace yrschl2=0 if (r2_p3_q_5_a==2 & r2_p3_q_6_a==1)
replace yrschl2=0 if (r2_p3_q_5_a==3 & r2_p3_q_6_a==1)

* Previously enrolled
replace yrschl2=0 if r2_p3_q_5_b==0
replace yrschl2=0 if r2_p3_q_6_b==0

* Never enrolled
replace yrschl2=0 if p3_q_2==3

** 1 year of schooling

* Currently enrolled
replace yrschl2=1 if (r2_p3_q_5_a==1 & r2_p3_q_6_a==2)
replace yrschl2=1 if (r2_p3_q_5_a==2 & r2_p3_q_6_a==2)
replace yrschl2=1 if (r2_p3_q_5_a==3 & r2_p3_q_6_a==2)

* Previously enrolled
replace yrschl2=1 if (r2_p3_q_5_b==1 & r2_p3_q_6_b==1)
replace yrschl2=1 if (r2_p3_q_5_b==2 & r2_p3_q_6_b==1)
replace yrschl2=1 if (r2_p3_q_5_b==3 & r2_p3_q_6_b==1)

** 2 years of schooling

* Currently enrolled
replace yrschl2=2 if (r2_p3_q_5_a==1 & r2_p3_q_6_a==3)
replace yrschl2=2 if (r2_p3_q_5_a==2 & r2_p3_q_6_a==3)
replace yrschl2=2 if (r2_p3_q_5_a==3 & r2_p3_q_6_a==3)

* Previously enrolled
replace yrschl2=2 if (r2_p3_q_5_b==1 & r2_p3_q_6_b==2)
replace yrschl2=2 if (r2_p3_q_5_b==2 & r2_p3_q_6_b==2)
replace yrschl2=2 if (r2_p3_q_5_b==3 & r2_p3_q_6_b==2)

** 3 year of schooling

* Currently enrolled
replace yrschl2=3 if (r2_p3_q_5_a==1 & r2_p3_q_6_a==4)
replace yrschl2=3 if (r2_p3_q_5_a==2 & r2_p3_q_6_a==4)
replace yrschl2=3 if (r2_p3_q_5_a==3 & r2_p3_q_6_a==4)

* Previously enrolled
replace yrschl2=3 if (r2_p3_q_5_b==1 & r2_p3_q_6_b==3)
replace yrschl2=3 if (r2_p3_q_5_b==2 & r2_p3_q_6_b==3)
replace yrschl2=3 if (r2_p3_q_5_b==3 & r2_p3_q_6_b==3)

** 4 years of schooling

* Currently enrolled
replace yrschl2=4 if (r2_p3_q_5_a==1 & r2_p3_q_6_a==5)
replace yrschl2=4 if (r2_p3_q_5_a==2 & r2_p3_q_6_a==5)
replace yrschl2=4 if (r2_p3_q_5_a==3 & r2_p3_q_6_a==5)

* Previously enrolled
replace yrschl2=4 if (r2_p3_q_5_b==1 & r2_p3_q_6_b==4)
replace yrschl2=4 if (r2_p3_q_5_b==2 & r2_p3_q_6_b==4)
replace yrschl2=4 if (r2_p3_q_5_b==3 & r2_p3_q_6_b==4)

** 5 years of schooling

* Currently enrolled
replace yrschl2=5 if (r2_p3_q_5_a==1 & r2_p3_q_6_a==6)
replace yrschl2=5 if (r2_p3_q_5_a==2 & r2_p3_q_6_a==6)
replace yrschl2=5 if (r2_p3_q_5_a==3 & r2_p3_q_6_a==6)

* Previously enrolled
replace yrschl2=5 if (r2_p3_q_5_b==1 & r2_p3_q_6_b==5)

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replace yrschl2=5 if (r2_p3_q_5_b==2 & r2_p3_q_6_b==5)
replace yrschl2=5 if (r2_p3_q_5_b==3 & r2_p3_q_6_b==5)

** 6 years of schooling

* Currently enrolled
replace yrschl2=6 if (r2_p3_q_5_a==1 & r2_p3_q_6_a==7)
replace yrschl2=6 if (r2_p3_q_5_a==2 & r2_p3_q_6_a==7)
replace yrschl2=6 if (r2_p3_q_5_a==3 & r2_p3_q_6_a==7)
replace yrschl2=6 if (r2_p3_q_5_a==4 & r2_p3_q_6_a==1)

* Previously enrolled
replace yrschl2=6 if (r2_p3_q_5_b==1 & r2_p3_q_6_b==6)
replace yrschl2=6 if (r2_p3_q_5_b==2 & r2_p3_q_6_b==6)
replace yrschl2=6 if (r2_p3_q_5_b==3 & r2_p3_q_6_b==6)

** 7 years of schooling

* Currently enrolled
replace yrschl2=7 if (r2_p3_q_5_a==1 & r2_p3_q_6_a==8)
replace yrschl2=7 if (r2_p3_q_5_a==2 & r2_p3_q_6_a==8)
replace yrschl2=7 if (r2_p3_q_5_a==3 & r2_p3_q_6_a==8)
replace yrschl2=7 if (r2_p3_q_5_a==4 & r2_p3_q_6_a==2)

* Previously enrolled
replace yrschl2=7 if (r2_p3_q_5_b==1 & r2_p3_q_6_b==7)
replace yrschl2=7 if (r2_p3_q_5_b==2 & r2_p3_q_6_b==7)
replace yrschl2=7 if (r2_p3_q_5_b==3 & r2_p3_q_6_b==7)
replace yrschl2=7 if (r2_p3_q_5_b==4 & r2_p3_q_6_b==1)

** 8 years of schooling

* Currently enrolled
replace yrschl2=8 if (r2_p3_q_5_a==1 & r2_p3_q_6_a==9)
replace yrschl2=8 if (r2_p3_q_5_a==2 & r2_p3_q_6_a==9)
replace yrschl2=8 if (r2_p3_q_5_a==3 & r2_p3_q_6_a==9)
replace yrschl2=8 if (r2_p3_q_5_a==4 & (r2_p3_q_6_a>=3 & r2_p3_q_6_a<=9))

* Previously enrolled
replace yrschl2=8 if (r2_p3_q_5_b==1 & r2_p3_q_6_b==8)
replace yrschl2=8 if (r2_p3_q_5_b==2 & r2_p3_q_6_b==8)
replace yrschl2=8 if (r2_p3_q_5_b==3 & r2_p3_q_6_b==8)
replace yrschl2=8 if (r2_p3_q_5_b==4 & r2_p3_q_6_b==2)

** 9 years of schooling

* Currently enrolled
replace yrschl2=9 if (r2_p3_q_5_a==5 & r2_p3_q_6_a==1)

* Previously enrolled
replace yrschl2=9 if (r2_p3_q_5_b==1 & r2_p3_q_6_b==9)
replace yrschl2=9 if (r2_p3_q_5_b==2 & r2_p3_q_6_b==9)
replace yrschl2=9 if (r2_p3_q_5_b==3 & r2_p3_q_6_b==9)
replace yrschl2=9 if (r2_p3_q_5_b==4 & (r2_p3_q_6_b>=2 & r2_p3_q_6_b<=9))

** 10 years of schooling

* Currently enrolled
replace yrschl2=10 if (r2_p3_q_5_a==5 & r2_p3_q_6_a==2)

* Previously enrolled
replace yrschl2=10 if (r2_p3_q_5_b==5 & r2_p3_q_6_b==1)

** 11 years of schooling

* Currently enrolled
replace yrschl2=11 if (r2_p3_q_5_a==5 & (r2_p3_q_6_a>=3 & r2_p3_q_6_a<=9))

* Previously enrolled
replace yrschl2=11 if (r2_p3_q_5_b==5 & r2_p3_q_6_b==2)

** 12 years of schooling - Complete Secondary

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* Currently enrolled
replace yrschl2=12 if (r2_p3_q_5_a==7 & r2_p3_q_6_a==1)
replace yrschl2=12 if (r2_p3_q_5_a==6 & r2_p3_q_6_a==1)

* Previously enrolled
replace yrschl2=12 if (r2_p3_q_5_b==5 & (r2_p3_q_6_b>=3 & r2_p3_q_6_b<=9))

** 13 years of schooling

* Currently enrolled
replace yrschl2=13 if (r2_p3_q_5_a==7 & r2_p3_q_6_a==2)
replace yrschl2=13 if (r2_p3_q_5_a==6 & r2_p3_q_6_a==2)

* Previously enrolled
replace yrschl2=13 if (r2_p3_q_5_b==7 & r2_p3_q_6_b==1)
replace yrschl2=13 if (r2_p3_q_5_b==6 & r2_p3_q_6_b==1)

** 14 years of schooling

* Currently enrolled
replace yrschl2=14 if (r2_p3_q_5_a==7 & r2_p3_q_6_a==3)
replace yrschl2=14 if (r2_p3_q_5_a==6 & (r2_p3_q_6_a>=3 & r2_p3_q_6_a<=9))

* Previously enrolled
replace yrschl2=14 if (r2_p3_q_5_b==7 & r2_p3_q_6_b==2)
replace yrschl2=14 if (r2_p3_q_5_b==6 & r2_p3_q_6_b==2)

** 15 years of schooling

* Currently enrolled
replace yrschl2=15 if (r2_p3_q_5_a==7 & r2_p3_q_6_a==4)

* Previously enrolled
replace yrschl2=15 if (r2_p3_q_5_b==7 & r2_p3_q_6_b==3)
replace yrschl2=15 if (r2_p3_q_5_b==6 & (r2_p3_q_6_b>=3 & r2_p3_q_6_b<=9))

** 16+ years of schooling

* Currently enrolled
replace yrschl2=16 if (r2_p3_q_5_a==7 & (r2_p3_q_6_a>=5 & r2_p3_q_6_a<=9))
replace yrschl2=16 if r2_p3_q_5_a==8

* Previously enrolled
replace yrschl2=16 if (r2_p3_q_5_b==7 & (r2_p3_q_6_b>=4 & r2_p3_q_6_b<=9))
replace yrschl2=16 if (r2_p3_q_5_b==8)

** Non-standard: Literacy class & Quran
replace yrschl2=77 if (r2_p3_q_5_a==9 | r2_p3_q_5_a==10)
replace yrschl2=77 if (r2_p3_q_5_b==9 | r2_p3_q_5_b==10)

** Not applicable
replace yrschl2=88 if p2_q_05_y<=4

** LABELS

label variable yrschl2 "Completed years of schooling"
label values yrschl2 yrschl

*****
** YEARS OF SCHOOLING - ROUND 4 (ENDLINE)
*****

** No schooling

* Currently enrolled
gen yrschl4=.
replace yrschl4=0 if (r4_p3_q_5_b==0 & p3_q_2==1)
replace yrschl4=0 if (r4_p3_q_6_b==0 & p3_q_2==1)
replace yrschl4=0 if (r4_p3_q_5_b==1 & r4_p3_q_6_b==1 & p3_q_2==1)

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replace yrschl4=0 if (r4_p3_q_5_b==2 & r4_p3_q_6_b==1 & p3_q_2==1)
replace yrschl4=0 if (r4_p3_q_5_b==3 & r4_p3_q_6_b==1 & p3_q_2==1)

* Previously enrolled
replace yrschl4=0 if (r4_p3_q_5_b==0 & p3_q_2==2)
replace yrschl4=0 if (r4_p3_q_6_b==0 & p3_q_2==2)

* Never enrolled
replace yrschl4=0 if p3_q_2==3

** 1 year of schooling

* Currently enrolled
replace yrschl4=1 if (r4_p3_q_5_b==1 & r4_p3_q_6_b==2) & p3_q_2==1
replace yrschl4=1 if (r4_p3_q_5_b==2 & r4_p3_q_6_b==2) & p3_q_2==1
replace yrschl4=1 if (r4_p3_q_5_b==3 & r4_p3_q_6_b==2) & p3_q_2==1

* Previously enrolled
replace yrschl4=1 if (r4_p3_q_5_b==1 & r4_p3_q_6_b==1) & p3_q_2==2
replace yrschl4=1 if (r4_p3_q_5_b==2 & r4_p3_q_6_b==1) & p3_q_2==2
replace yrschl4=1 if (r4_p3_q_5_b==3 & r4_p3_q_6_b==1) & p3_q_2==2

** 2 years of schooling

* Currently enrolled
replace yrschl4=2 if (r4_p3_q_5_b==1 & r4_p3_q_6_b==3) & p3_q_2==1
replace yrschl4=2 if (r4_p3_q_5_b==2 & r4_p3_q_6_b==3) & p3_q_2==1
replace yrschl4=2 if (r4_p3_q_5_b==3 & r4_p3_q_6_b==3) & p3_q_2==1

* Previously enrolled
replace yrschl4=2 if (r4_p3_q_5_b==1 & r4_p3_q_6_b==2) & p3_q_2==2
replace yrschl4=2 if (r4_p3_q_5_b==2 & r4_p3_q_6_b==2) & p3_q_2==2
replace yrschl4=2 if (r4_p3_q_5_b==3 & r4_p3_q_6_b==2) & p3_q_2==2

** 3 year of schooling

* Currently enrolled
replace yrschl4=3 if (r4_p3_q_5_b==1 & r4_p3_q_6_b==4) & p3_q_2==1
replace yrschl4=3 if (r4_p3_q_5_b==2 & r4_p3_q_6_b==4) & p3_q_2==1
replace yrschl4=3 if (r4_p3_q_5_b==3 & r4_p3_q_6_b==4) & p3_q_2==1

* Previously enrolled
replace yrschl4=3 if (r4_p3_q_5_b==1 & r4_p3_q_6_b==3) & p3_q_2==2
replace yrschl4=3 if (r4_p3_q_5_b==2 & r4_p3_q_6_b==3) & p3_q_2==2
replace yrschl4=3 if (r4_p3_q_5_b==3 & r4_p3_q_6_b==3) & p3_q_2==2

** 4 years of schooling

* Currently enrolled
replace yrschl4=4 if (r4_p3_q_5_b==1 & r4_p3_q_6_b==5) & p3_q_2==1
replace yrschl4=4 if (r4_p3_q_5_b==2 & r4_p3_q_6_b==5) & p3_q_2==1
replace yrschl4=4 if (r4_p3_q_5_b==3 & r4_p3_q_6_b==5) & p3_q_2==1

* Previously enrolled
replace yrschl4=4 if (r4_p3_q_5_b==1 & r4_p3_q_6_b==4) & p3_q_2==2
replace yrschl4=4 if (r4_p3_q_5_b==2 & r4_p3_q_6_b==4) & p3_q_2==2
replace yrschl4=4 if (r4_p3_q_5_b==3 & r4_p3_q_6_b==4) & p3_q_2==2

** 5 years of schooling

* Currently enrolled
replace yrschl4=5 if (r4_p3_q_5_b==1 & r4_p3_q_6_b==6) & p3_q_2==1
replace yrschl4=5 if (r4_p3_q_5_b==2 & r4_p3_q_6_b==6) & p3_q_2==1
replace yrschl4=5 if (r4_p3_q_5_b==3 & r4_p3_q_6_b==6) & p3_q_2==1

* Previously enrolled
replace yrschl4=5 if (r4_p3_q_5_b==1 & r4_p3_q_6_b==5) & p3_q_2==2
replace yrschl4=5 if (r4_p3_q_5_b==2 & r4_p3_q_6_b==5) & p3_q_2==2
replace yrschl4=5 if (r4_p3_q_5_b==3 & r4_p3_q_6_b==5) & p3_q_2==2

** 6 years of schooling

* Currently enrolled
replace yrschl4=6 if (r4_p3_q_5_b==1 & r4_p3_q_6_b==7) & p3_q_2==1
replace yrschl4=6 if (r4_p3_q_5_b==2 & r4_p3_q_6_b==7) & p3_q_2==1
replace yrschl4=6 if (r4_p3_q_5_b==3 & r4_p3_q_6_b==7) & p3_q_2==1

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replace yrschl4=6 if (r4_p3_q_5_b==4 & r4_p3_q_6_b==1) & p3_q_2==1
* Previously enrolled
replace yrschl4=6 if (r4_p3_q_5_b==1 & r4_p3_q_6_b==6) & p3_q_2==2
replace yrschl4=6 if (r4_p3_q_5_b==2 & r4_p3_q_6_b==6) & p3_q_2==2
replace yrschl4=6 if (r4_p3_q_5_b==3 & r4_p3_q_6_b==6) & p3_q_2==2

** 7 years of schooling
* Currently enrolled
replace yrschl4=7 if (r4_p3_q_5_b==1 & r4_p3_q_6_b==8) & p3_q_2==1
replace yrschl4=7 if (r4_p3_q_5_b==2 & r4_p3_q_6_b==8) & p3_q_2==1
replace yrschl4=7 if (r4_p3_q_5_b==3 & r4_p3_q_6_b==8) & p3_q_2==1
replace yrschl4=7 if (r4_p3_q_5_b==4 & r4_p3_q_6_b==2) & p3_q_2==1

* Previously enrolled
replace yrschl4=7 if (r4_p3_q_5_b==1 & r4_p3_q_6_b==7) & p3_q_2==2
replace yrschl4=7 if (r4_p3_q_5_b==2 & r4_p3_q_6_b==7) & p3_q_2==2
replace yrschl4=7 if (r4_p3_q_5_b==3 & r4_p3_q_6_b==7) & p3_q_2==2
replace yrschl4=7 if (r4_p3_q_5_b==4 & r4_p3_q_6_b==1) & p3_q_2==2

** 8 years of schooling
* Currently enrolled
replace yrschl4=8 if (r4_p3_q_5_b==1 & r4_p3_q_6_b==9) & p3_q_2==1
replace yrschl4=8 if (r4_p3_q_5_b==2 & r4_p3_q_6_b==9) & p3_q_2==1
replace yrschl4=8 if (r4_p3_q_5_b==3 & r4_p3_q_6_b==9) & p3_q_2==1
replace yrschl4=8 if (r4_p3_q_5_b==4 & (r4_p3_q_6_b>=3 & r4_p3_q_6_b<=9)) & p3_q_2==1

* Previously enrolled
replace yrschl4=8 if (r4_p3_q_5_b==1 & r4_p3_q_6_b==8) & p3_q_2==2
replace yrschl4=8 if (r4_p3_q_5_b==2 & r4_p3_q_6_b==8) & p3_q_2==2
replace yrschl4=8 if (r4_p3_q_5_b==3 & r4_p3_q_6_b==8) & p3_q_2==2
replace yrschl4=8 if (r4_p3_q_5_b==4 & r4_p3_q_6_b==2) & p3_q_2==2

** 9 years of schooling
* Currently enrolled
replace yrschl4=9 if (r4_p3_q_5_b==5 & r4_p3_q_6_b==1) & p3_q_2==1

* Previously enrolled
replace yrschl4=9 if (r4_p3_q_5_b==1 & r4_p3_q_6_b==9) & p3_q_2==2
replace yrschl4=9 if (r4_p3_q_5_b==2 & r4_p3_q_6_b==9) & p3_q_2==2
replace yrschl4=9 if (r4_p3_q_5_b==3 & r4_p3_q_6_b==9) & p3_q_2==2
replace yrschl4=9 if (r4_p3_q_5_b==4 & (r4_p3_q_6_b>=2 & r4_p3_q_6_b<=9)) & p3_q_2==2

** 10 years of schooling
* Currently enrolled
replace yrschl4=10 if (r4_p3_q_5_b==5 & r4_p3_q_6_b==2) & p3_q_2==1

* Previously enrolled
replace yrschl4=10 if (r4_p3_q_5_b==5 & r4_p3_q_6_b==1) & p3_q_2==2

** 11 years of schooling
* Currently enrolled
replace yrschl4=11 if (r4_p3_q_5_b==5 & (r4_p3_q_6_b>=3 & r4_p3_q_6_b<=9)) & p3_q_2==1

* Previously enrolled
replace yrschl4=11 if (r4_p3_q_5_b==5 & r4_p3_q_6_b==2) & p3_q_2==2

** 12 years of schooling - Complete Secondary
* Currently enrolled
replace yrschl4=12 if (r4_p3_q_5_b==7 & r4_p3_q_6_b==1) & p3_q_2==1
replace yrschl4=12 if (r4_p3_q_5_b==6 & r4_p3_q_6_b==1) & p3_q_2==1

* Previously enrolled
replace yrschl4=12 if (r4_p3_q_5_b==5 & (r4_p3_q_6_b>=3 & r4_p3_q_6_b<=9)) & p3_q_2==2

** 13 years of schooling
* Currently enrolled
replace yrschl4=13 if (r4_p3_q_5_b==7 & r4_p3_q_6_b==2) & p3_q_2==1
replace yrschl4=13 if (r4_p3_q_5_b==6 & r4_p3_q_6_b==2) & p3_q_2==1

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* Previously enrolled
replace yrschl4=13 if (r4_p3_q_5_b==7 & r4_p3_q_6_b==1) & p3_q_2==2
replace yrschl4=13 if (r4_p3_q_5_b==6 & r4_p3_q_6_b==1) & p3_q_2==2

** 14 years of schooling

* Currently enrolled
replace yrschl4=14 if (r4_p3_q_5_b==7 & r4_p3_q_6_b==3) & p3_q_2==1
replace yrschl4=14 if (r4_p3_q_5_b==6 & (r4_p3_q_6_b>=3 & r4_p3_q_6_b<=9)) & p3_q_2==1

* Previously enrolled
replace yrschl4=14 if (r4_p3_q_5_b==7 & r4_p3_q_6_b==2) & p3_q_2==2
replace yrschl4=14 if (r4_p3_q_5_b==6 & r4_p3_q_6_b==2) & p3_q_2==2

** 15 years of schooling

* Currently enrolled
replace yrschl4=15 if (r4_p3_q_5_b==7 & r4_p3_q_6_b==4) & p3_q_2==1

* Previously enrolled
replace yrschl4=15 if (r4_p3_q_5_b==7 & r4_p3_q_6_b==3) & p3_q_2==2
replace yrschl4=15 if (r4_p3_q_5_b==6 & (r4_p3_q_6_b>=3 & r4_p3_q_6_b<=9)) & p3_q_2==2

** 16+ years of schooling

* Currently enrolled
replace yrschl4=16 if (r4_p3_q_5_b==7 & (r4_p3_q_6_b>=5 & r4_p3_q_6_b<=9)) & p3_q_2==1
replace yrschl4=16 if r4_p3_q_5_b==8 & p3_q_2==1

* Previously enrolled
replace yrschl4=16 if (r4_p3_q_5_b==7 & (r4_p3_q_6_b>=4 & r4_p3_q_6_b<=9)) & p3_q_2==2
replace yrschl4=16 if r4_p3_q_5_b==8 & p3_q_2==2

** Non-standard: Literacy class & Quran
replace yrschl4=77 if (r4_p3_q_5_b==9 | r4_p3_q_5_b==10)

** Not applicable
replace yrschl4=88 if p2_q_05_y<=4

** LABELS

label variable yrschl4 "Completed years of schooling"
label values yrschl4 yrschl

```