

The DASIS Report

May 30, 2003

Graphing Multi-year Analyses of TEDS

In Brief

- Over 80 studies, including the 1992-2000 TEDS, are publicly available from the Substance Abuse and Mental Health Data Archive (SAMHDA) at <http://www.icpsr.umich.edu/SAMHDA>
- Program administrators, researchers, and others with Internet access may run their own online analyses without using specialized software
- Contact the archive staff for assistance at samhda@icpsr.umich.edu or toll-free at (888) 741-7242

A combined file for the 1995-2000 Treatment Episode Data Set (TEDS) is available from the Substance Abuse and Mental Health Data Archive (SAMHDA)¹ using the archive's online data analysis system (DAS).² This file contains 9.6 million records and is useful for conducting geographic comparisons and analyzing changes over time.³ (The procedures described in this report only work with MS Internet Explorer, version 5 or higher.)

Access the SAMHDA homepage at <http://www.icpsr.umich.edu/SAMHDA>, click on "Online Analysis," select Treatment Episode Data Set, and select the TEDS 1995-2000 concatenated file.⁴ For this exercise, then click on the button for "Run frequency or crosstabulation" and click on "Start."

Example 1: Admissions Involving Heroin by Year and Census Region

To examine trends in admissions that included heroin as a primary, secondary, or tertiary substance of abuse in the four Census regions of the country, run a cross-tabulation using the variables:

- Heroin Flag (variable name *herflg*), which denotes whether heroin was mentioned as a drug of abuse at admission;

Figure 1. Excerpt of Input Screen

SDA Tables Program
 (Selected Study: Treatment Episode Data Set, 1995-2000 (Concatenated))
 Help: [General](#) / [Recoding Variables](#)
REQUIRED Variable names to specify
 Row:

OPTIONAL Variable names to specify
 Column:
 Control:

- Year (variable name *year*);
- Census Region (variable name *region*).

All variables and codes are specified in the online TEDS codebooks. Use *region* as the

control variable to produce a separate table for each of the four Census regions, as well as a table that includes all four regions. The input screen is shown above (Figure 1).

For all regions combined, the percentage of admissions involving heroin showed statistically significant increases in 1997 (18.9 percent), decreases in 1998 (18.7 percent), and increases again in 1999 and

Figure 2. Admissions Involving Heroin, All Regions: 1995-2000

Statistics for all valid cases								
Cells contain: -Column percent -N of cases		YEAR						ROW TOTAL
		1995	1996	1997	1998	1999	2000	
HERFLG	SUBSTANCE NOT MENTIONED	82.3 1,346,922	82.2 1,315,779	81.1 1,234,770	81.3 1,315,847	80.7 1,321,166	79.6 1,273,457	81.2 7,807,941
	SUBSTANCE MENTIONED	17.7 290,380	17.8 284,595	18.9 287,465	18.7 302,944	19.3 316,213	20.4 326,246	18.8 1,807,843
	COL TOTAL	100.0 1,637,302	100.0 1,600,374	100.0 1,522,235	100.0 1,618,791	100.0 1,637,379	100.0 1,599,703	100.0 9,615,784

Legend for all tables:

Color coding:	<-2.0	<-1.0	<0.0	>0.0	>1.0	>2.0	T
N in each cell:	Smaller than expected			Larger than expected			

2000 (19.3 and 20.4 percent, respectively). The color-coding indicates the strength of the statistical results, as displayed in the legend (Figure 2).

Figures 3-6 show the tables produced for each region of the country, beginning with the Western region. These results show that, in the West, heroin admissions were highest 1995-1996 (26.4 and 26.1 percent, respectively), followed by decreases beginning in 1997 (24.6 percent) and statistically significant decreases in 1998-2000 (21.4 to 21.7 percent). However, the other three regions show the opposite trend, with lower percentages of admissions involving heroin in 1995-1996, followed by increases beginning in 1997 that were statistically significant in 1998-2000.

Example 2: Graphing Results

Using these results and a spreadsheet software program such as Microsoft Excel, graphs can be created to depict trends, which are often clearer when represented visually. To create a line graph of the heroin admissions in Figures 2-6 using Excel:

1. Open Excel⁵ and cut and paste the row “Substance Mentioned” of each table into a spreadsheet. This will copy as two rows in Excel; one for the percentages and one for N of cases. This example will include percentages only; delete the N

Figure 3. Admissions Involving Heroin, West: 1995-2000

Statistics for REGION = 4(WEST)								
Cells contain: -Column percent -N of cases		YEAR						ROW TOTAL
		1995	1996	1997	1998	1999	2000	
HERFLG	SUBSTANCE NOT MENTIONED	73.6 280,449	73.9 280,544	75.4 279,733	78.3 314,514	78.3 338,700	78.6 334,514	76.4 1,828,454
	SUBSTANCE MENTIONED	26.4 100,414	26.1 99,160	24.6 91,358	21.7 87,288	21.7 94,006	21.4 91,099	23.6 563,325
	COL TOTAL	100.0 380,863	100.0 379,704	100.0 371,091	100.0 401,802	100.0 432,706	100.0 425,613	100.0 2,391,779

Figure 4. Admissions Involving Heroin, South: 1995-2000

Statistics for REGION = 3(SOUTH)								
Cells contain: -Column percent -N of cases		YEAR						ROW TOTAL
		1995	1996	1997	1998	1999	2000	
HERFLG	SUBSTANCE NOT MENTIONED	90.2 366,658	90.1 322,906	88.5 289,360	88.0 316,643	87.2 344,433	86.5 337,696	88.4 1,977,696
	SUBSTANCE MENTIONED	9.8 39,836	9.9 35,519	11.5 37,503	12.0 43,349	12.8 50,652	13.5 52,807	11.6 259,666
	COL TOTAL	100.0 406,494	100.0 358,425	100.0 326,863	100.0 359,992	100.0 395,085	100.0 390,503	100.0 2,237,362

Figure 5. Admissions Involving Heroin, Midwest: 1995-2000

Statistics for REGION = 1(MIDWEST)								
Cells contain: -Column percent -N of cases		YEAR						ROW TOTAL
		1995	1996	1997	1998	1999	2000	
HERFLG	SUBSTANCE NOT MENTIONED	93.0 368,287	93.1 376,868	92.3 337,312	91.4 360,532	91.6 321,093	90.0 286,867	92.0 2,050,959
	SUBSTANCE MENTIONED	7.0 27,695	6.9 28,067	7.7 28,070	8.6 33,877	8.4 29,618	10.0 31,932	8.0 179,259
	COL TOTAL	100.0 395,982	100.0 404,935	100.0 365,382	100.0 394,409	100.0 350,711	100.0 318,799	100.0 2,230,218

Figure 6. Admissions Involving Heroin, Northeast: 1995-2000

Statistics for REGION = 2(NORTHEAST)								
Cells contain: -Column percent -N of cases		YEAR						ROW TOTAL
		1995	1996	1997	1998	1999	2000	
HERFLG	SUBSTANCE NOT MENTIONED	73.0 331,528	73.4 335,461	71.6 328,365	70.1 324,158	69.1 316,940	67.6 314,380	70.8 1,950,832
	SUBSTANCE MENTIONED	27.0 122,435	26.6 121,849	28.4 130,534	29.9 138,430	30.9 141,937	32.4 150,408	29.2 805,593
	COL TOTAL	100.0 453,963	100.0 457,310	100.0 458,899	100.0 462,588	100.0 458,877	100.0 464,788	100.0 2,756,425

of cases rows from the spreadsheet. Add column and row titles. Figure 7 shows the cells to be graphed.

2. Remain in the spreadsheet and click on the Chart Wizard icon. Select the "Standard Type" tab. Under "Chart Type," select "Line." Under "Chart Sub-type," the description of each chart sub-type displays when you click on each icon; select the graph "Line with markers displayed at each data value." (See Figure 8 for a completed screen for Step 1 of Chart Wizard.) Hit "Next."
3. At the top of the next window, select the "Series" tab. At the bottom of the "Series" box, click "Add." Click in the "Name" box and enter "All regions" or cut and paste the label from the spreadsheet. In the "Values" box, delete the contents and click and drag across the columns in the spreadsheet for "All regions." This will insert the

spreadsheet cells into the box. In the box "Category "X" axis labels," click and drag across the title row of the spreadsheet (1995-2000) or manually insert the years separated by commas.

4. Click the "Add" button again and repeat this procedure for all rows. The label for the X axis need only be entered for the first series. The percentages along the Y axis automatically adjust as more data

are entered. (Figure 9 shows the completed screen for Step 2.) Click "Next" when data for all regions have been entered.

5. On the next screen, under the "Titles" tab, insert a chart title and labels for the X and Y axis. See Figure 10. Click "Next" when all titles have been entered.
6. The final step is to save the chart, either as an object within the same spreadsheet in or in a new spreadsheet. Figure 11 provides an example, while Figure 12 shows the completed graph. When finished, hit "Finish."

In each line of the graph, the change in admissions between 1996 and 1997 for each region as well as the entire country is apparent, with the largest changes being the increase in the Northeast and the decline in the West. The

Figure 7. Spreadsheet with Percentage of Heroin Admissions, by Year and Region: 1995-2000

	1995	1996	1997	1998	1999	2000
All regions	17.7	17.8	18.9	18.7	19.3	20.4
West	26.4	26.1	24.6	21.7	21.7	21.4
South	9.8	9.9	11.5	12.0	12.8	13.5
Midwest	7.0	6.9	7.7	8.6	8.4	10.0
Northeast	27.0	26.6	28.4	29.9	30.9	32.4

graph also shows that heroin admissions in the Midwest and South are below the national average and the admissions in the West and Northeast are above the average, with admissions in the West leveling off to only slightly above the national average by 2000. The graph can be cut and pasted into another type of file such as a word processing document or Power Point presentation.

End Notes

- ¹ The archive is supported by the Office of Applied Studies, SAMHSA, and based at the Inter-university Consortium for Political and Social Research at the University of Michigan through a subcontract with the National Organization for Research at the University of Chicago (NORC).
- ² The DAS is based on Survey Documentation and Analysis (SDA) software developed at the Computer-assisted Survey Methods (CSM) Program at the University of California at Berkeley.
- ³ Using the DAS, this file may also be used to subset and download records for a given State or metropolitan area.
- ⁴ See previous reports for further instruction on using the DAS – The DASIS Report: *Analyzing TEDS Online* (<http://www.samhsa.gov/oas/2k2/TEDShelp/TEDShelp.pdf>) and The NHSDA Report: *Accessing and Analyzing the NHSDA Online* (<http://www.samhsa.gov/oas/2k2/SAMHDAhelp/SAMHDAhelp.pdf>).
- ⁵ Excel 2002 was used to create this example.

Figure 8. Selection of Chart Type

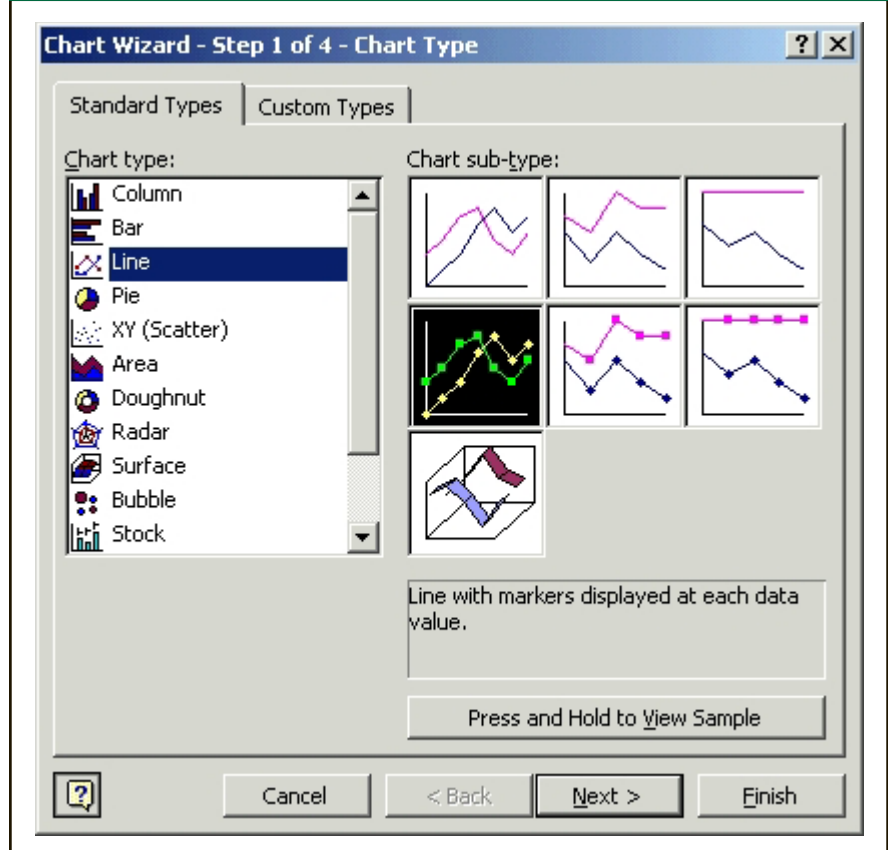


Figure 9. Input of Source Data

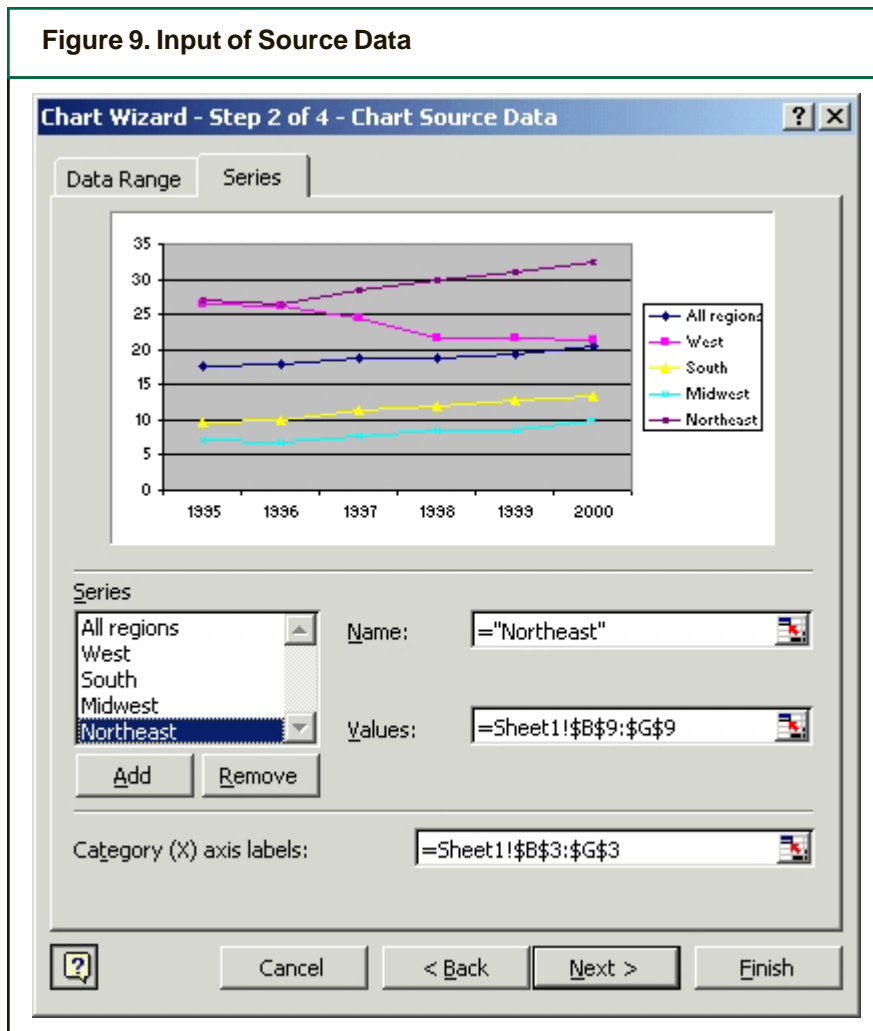


Figure 10. Completion of Chart Options

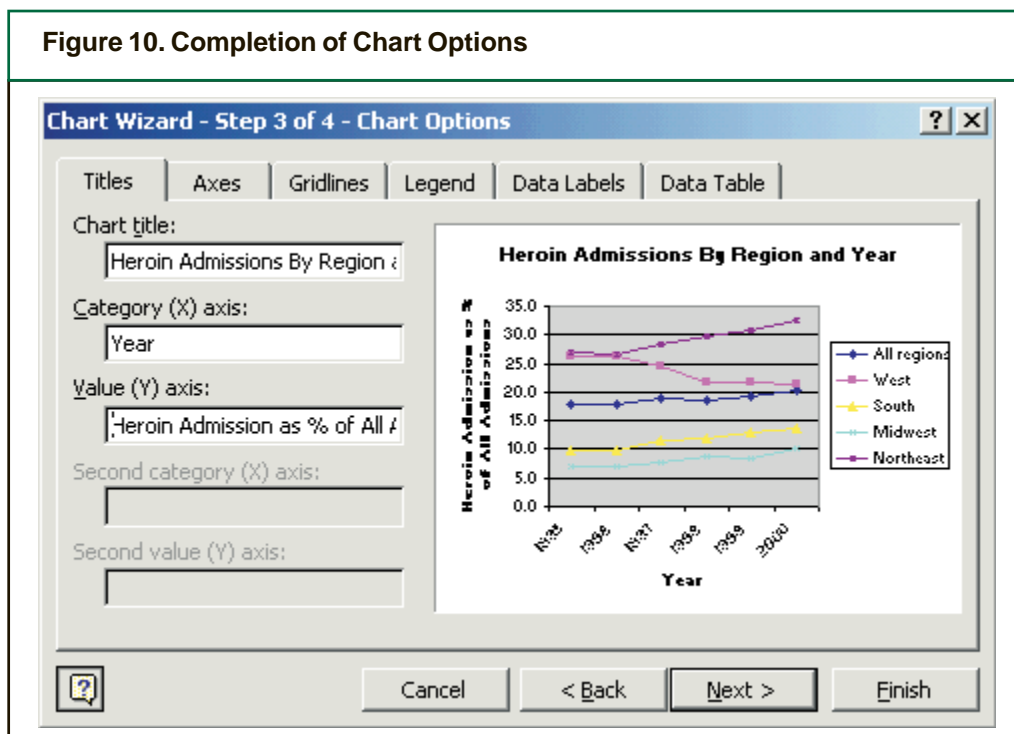


Figure 11. Saving Chart Location

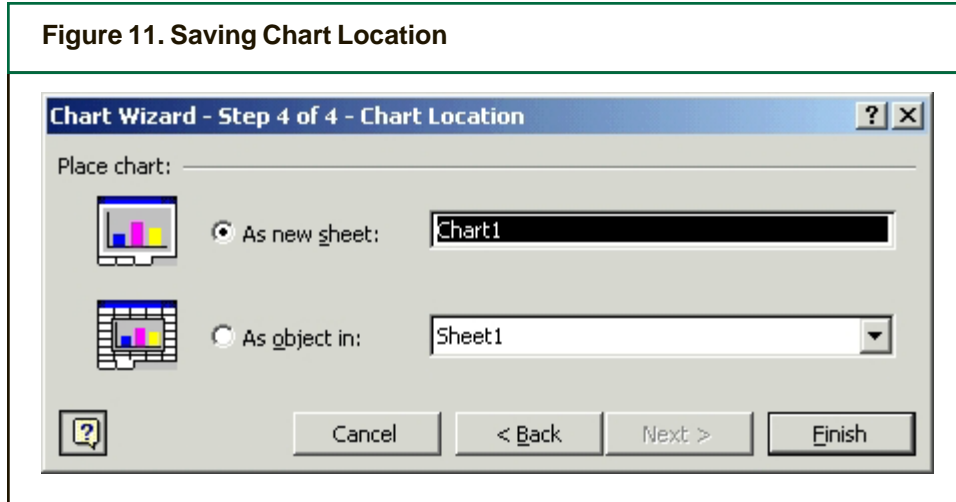
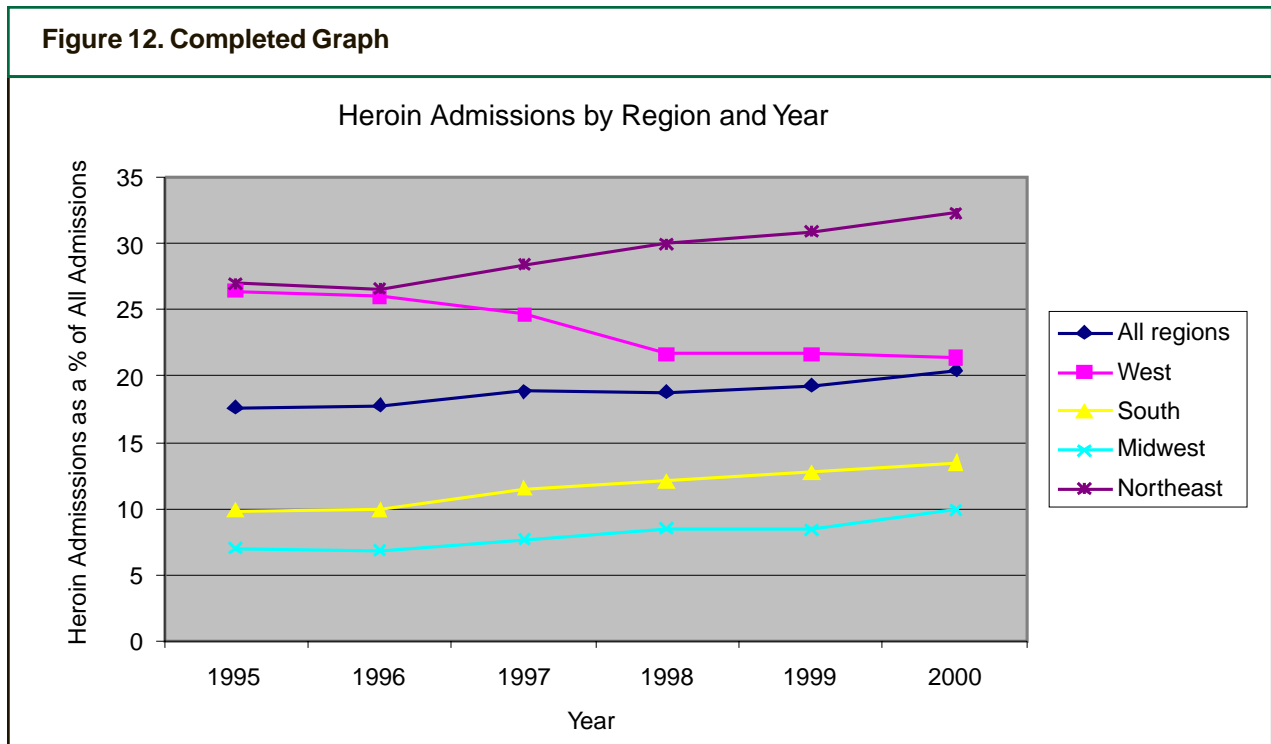


Figure 12. Completed Graph



The Drug and Alcohol Services Information System (DASIS) is an integrated data system maintained by the Office of Applied Studies, Substance Abuse and Mental Health Services Administration (SAMHSA). One component of DASIS is the Treatment Episode Data Set (TEDS). TEDS is a compilation of data on the demographic characteristics and substance abuse problems of those admitted for substance abuse treatment. The information comes primarily from facilities that receive some public funding. Information on treatment admissions is routinely collected by State administrative systems and then submitted to SAMHSA in a standard format. Approximately 1.6 million records are included in TEDS each year. TEDS records represent admissions rather than individuals, as a person may be admitted to treatment more than once.

The *DASIS Report* is prepared by the Office of Applied Studies, SAMHSA; Synectics for Management Decisions, Inc., Arlington, Virginia; and RTI, Research Triangle Park, North Carolina.

Information and data for this issue are based on data reported to TEDS through April 1, 2002.

Access the latest TEDS reports at: <http://www.samhsa.gov/oas/dasis.htm>
 Access the latest TEDS public use files at: <http://www.samhsa.gov/oas/SAMHDA.htm>
 Other substance abuse reports are available at: <http://www.DrugAbuseStatistics.samhsa.gov>



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