

Paper 092-31

## **PDF Can be Pretty Darn Fancy - Tips and Tricks for the ODS PDF Destination**

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### **Abstract**

We're not too far removed from the days when presentation-ready SAS® output meant lots of cutting and pasting or retyping. Now, the ODS PDF destination enables you to produce high quality output the first time, without other tools or applications.

This paper explores a number of ODS options in general and, more specifically, their use in creating PDF output. We will cover ODS ESCAPECHAR, which allows for inline formatting of titles, footnotes and other text; ODS LAYOUT, which lets you place output wherever you want it on the page - even output from more than one procedure; inline formatting in PROC REPORT; overlaying output from SAS/Graph procedures on top of other output and more.

We'll work from real life examples and see how you can produce output that looks like it took hours to create.

### **Introduction**

This paper could be called "A Tale of Five Reports" – a series of real world examples that demonstrate a number of techniques that can be used with the PDF destination to make your reports crisper, cleaner and more useful than ever before.

All too often it seems that the examples presented in conference papers are difficult to translate to "real" code and the reader is forced to bridge the gap between concept and reality. All the examples shown here are copied directly from production code – the only exception being some macro variable references have been "resolved" to show the real values. The hope is that these annotated examples will give some ideas to use in your own jobs and see the breadth of options available to make your output look the way you want it to – without any after-the-fact intervention.

### **PROC REPORT, ODS PDF and Inline Styles**

Many of the examples presented in the paper use PROC REPORT. This procedure has the most flexibility in its use of ODS-related options and can best demonstrate the possibilities of creating PDF output. However, there are similar techniques that can be used with PROC PRINT and PROC TABULATE, as well as a number of techniques we'll see that are procedure independent.

### **CREATING GROUPS OF DATA COLUMNS**

We'll start with something simple – simple that is with ODS and PDF, not so simple just a few short years ago. Notice in Exhibit 1/Item 2 that there is a little extra space between some of the columns. Not quite a full data column worth, but enough to offset groups of data columns.

This is easy to do in PROC REPORT with some in-line formatting and a computed column. The pertinent code is shown below:

```

column popday Bookings Releases locationgroup,(blank thisyear lastyear diff);
:
define locationgroup / across '' format=securelocation. order=data preloadfmt
                        style=[font_size=9pt font_weight=bold];
define thisyear / analysis sum "&ReportYear" format=comma7.;
define lastyear / analysis sum "%eval(&ReportYear-1)" format=comma7.;
define diff / analysis sum 'Percent^Change' format=MyPct.;
define blank / computed '' format=NoDot. style=[cellwidth=8mm];

compute blank;
  blank = .;
endcomp;

```

Add another column (blank) to those under the location header

The **CELLWIDTH=** STYLE option specifies the width of the data column – in this case 8mm

The **COMPUTE** block creates the variable blank as a missing numeric value on every row of the report

Note in the report that the columns with yearly data (*thisyear*, *lastyear* and *diff*) are placed under a common column header (the “across” variable *locationgroup*). To visually separate the columns we can include a fourth variable, *blank*. *Blank* does not exist in the incoming dataset – it is computed in the procedure and set to missing (note the **COMPUTE** block). This could be done prior to ODS and you’d get a blank column in your output. However, notice the **STYLE=** parameter on the **DEFINE** statement for *blank*: we can specify the width of the column with the **CELLWIDTH** parameter and create a gap as large or small as we need.

We’ll see a number of other examples of style parameters. The syntax is simple:

**STYLE=[<style option=style value> <style option=style value >]**

You can enclose as many option=value pairs as you need, separated by spaces. A complete list of style options is included in Appendix A at the end of the paper.

## CREATING GROUPS OF DATA ROWS

We’ve seen how to add and control the appearance of blank columns in a report. We can use another technique to add blank rows to a report. Again, this technique could be used prior to ODS, but with the addition of **STYLE** we can control the appearance of those blank rows. Take a look at Exhibit 2/Item 2. Note that the blank line every five rows is a different color than the data rows and that it’s not as tall as the data rows. The blank lines are created in the following **COMPUTE** block.

```

compute before LineGroup / style=[font_size=3pt background=cxBDB76B];
  line ' ';
endcomp;

```

The **FONT\_SIZE=** STYLE changes the size of the text that will be generated in the **COMPUTE** block

The **BACKGROUND=** STYLE changes the background color of the text that will be generated in the **COMPUTE** block

The variable *LineGroup* is a non-printing **GROUP** variable that changes values every five observations. So, this **COMPUTE** code executes at the beginning of each group of five observations and writes a blank row to the table. However, it’s size and color are different from the surrounding rows because of the **STYLE=** option.

## DIFFERENTIAL STYLES ON DATA ROWS

Another use of inline styles can be seen in Exhibit 3. Item 1 points out that we have different text styles on different rows of the table, depending on the type of data displayed. The total lines are italicized for added emphasis.

The TreatmentDetail variable has a value "XX" for total adult and total youth values. The variable YouthAdult has a value "Z" for the grand total values.

```
compute treatmentdetail;
  if YouthAdult eq 'Z' or TreatmentDetail eq 'XX' then
    call define(_row_, 'style', "style=[font_style=italic]");
  if YouthAdult eq 'Z' then call define(_col_, 'style', "style=[background=white]");
endcomp;
```

Note that both of the CALL DEFINES are called for YouthAdult='Z' - you can see in the output that both the subtotal rows and the grand total row are italicized. The subtotal rows do not trigger the second CALL DEFINE and are left with their default background colors.

*The FONT\_STYLE= STYLE changes the appearance of the text for the entire row - note that the scope of the CALL DEFINE is the row (\_row\_)*

*The row header column normally has a colored background. On the grand total row, we use the BACKGROUND STYLE= option to set the column (\_col\_) background color to white.*

There is one other trick to note from Exhibit 3. We just alluded to the fact that the header row has a background color. It's hard to see in the black and white copy in the paper, but the background color of the header rows are the same color as the bars in the corresponding graph on the bottom of the page. The Adult rows in the table and bars on the Adult graph are green. The background and bars for the youth are blue. We can use another style trick to make this easy.

We start out by defining a SAS format that has RGB color codes as the labels for the data values.

```
value $TxColorDetail
  'OPA', 'IOA', 'MOA', 'GCA', 'XXA' = 'cx52b552'
  'OPY', 'IOY', 'MOY', 'GCY', 'XXY' = 'cx6373b5'
  'OSX' = 'cxd63194'
  'ZZZ' = 'white';
```

*All the adult values (ending in "A") are assigned to an RGB value (cx52b552) that is green. The youth values (ending in "Y") are assigned to a value that is blue (cx6373b5).*

The format will be used in an unusual place. As we saw above, the dataset used in the report contains a variable called TreatmentDetail that contains the type of treatment received (i.e., OPA=outpatient adult). We're going to reference the format we've just created, which defined the colors we want to use based on the type of treatment received, in the DEFINE statement for TreatmentDetail.

```
column YouthAdult TreatmentDetail (AdmissionDate, Total);

define YouthAdult / group noprint format=$YouthAdult;
define TreatmentDetail / ' ' group preloadfmt order=data
  format=$TreatmentTypeDetail.
  style=[background=$TxColorDetail. foreground=white font_weight=bold];
:
```

*Note that the BACKGROUND STYLE= option is calling the format with the colors. The value of TreatmentDetail is going to determine the background color of the cell!*

So, using the format in a STYLE= option on the DEFINE statement allows us to control the appearance of the data cell based on the value of the data.

We'll have one more example of inline STYLE= options when we discuss methods for putting output from more than one procedure on a page. For now, let's look at the greatest thing to happen to ODS since.... Well, it's just the greatest thing ever to happen to ODS.

## ODS ESCAPECHAR – THE GREATEST THING SINCE SLICED BREAD

The ODS ESCAPECHAR statement, while not specific to PDF, is one of most powerful new features of the Output Delivery System. The statement defines a character that is used to designate the beginning of a series of formatting commands.

```
ODS ESCAPECHAR='^';
```

That character will be used to designate sequences of text to be treated as “instructions” for the text that follows them. You can use the escaped sequences to change the style of titles and footnotes, add page numbers and superscripts, highlight single words in your output, and much more. You’ll want to choose a character that is not likely to be used in your data so as not to “confuse” ODS. Common choices are carets (^) and tildes (~).

We’ll look at a number of examples of using escape sequences to enhance your output. For all the examples we’ll use assume that we’re using the command above and use a caret to denote our escape sequences.

### Inline Formatting

We’ve seen a number of examples of formatting with the STYLE= option in PROC REPORT. A major use of ESCAPECHAR is to allow formatting of output almost anywhere – either from procedures, titles and footnotes.

The escape sequence “^S={}” allows you to embed style parameters in the brackets anywhere in your text. It’s required to use a capital S and, like STYLE=, any number of style parameters can be placed inside the brackets. The following example is from Exhibit 4/Item 2. Note in the exhibit that the leading part of the text is bold and the number part of the text is not. The code uses two S={} sequences in the value to be displayed by a LINE statement.

```
compute after key / style={just=left};
  TotalLine = '^S={font_weight=bold}Total DOC Days for Inmate: ^S={} ' || put(TotalDays.sum,2.);
  line ' ';
  line TotalLine $100.;
endcomp;
```

*The second, empty S={}, resets the formatting to the default*

*The variable TotalLine contains the text that will be written out by the LINE statement. We’re embedding text style information using the S= escape sequence. In this case, setting the text to bold*

Notice also that there is a STYLE= option on the COMPUTE statement which left justifies the text. You can use both methods for assigning styles. In this case, the ^S={} gives us control over portions of the text.

This same exhibit (4), item 1 points to another use of inline styles. The leading line of each section contains a name, booking number, booking date, etc. for inmates in a jail. (The names have been obscured or changed for confidentiality reasons.) Notice that the name is a larger, bold font and that the header text for the other items on the row are bold.

All the information on this row is actually contained in one big text variable. The value of the variable contains all the formatting information, along with the actual data values. Here is the dataset code that creates the variable (Key).

```
Key = catt('^S={font_weight=bold font_size=12pt}',Name,'^_ ',
  '^S={font_weight=bold}BA:^_ ^S={} ',BA,
  '^S={font_weight=bold}CCN:^_ ^S={} ',CCN,
  '^S={font_weight=bold}Booking Date:^_ ^S={} ',put(BookingDate,mddyy10.),
  '^S={font_weight=bold}Release Date:^_ ^S={} ',put(BookingRelDate,mddyy10.));
```

*The formatting information is included in the variable value itself. The formatting is turned “on” and “off” (with ^S={}) so that some parts of the text will be bold and others not.*

*The values of the variables (Name, BA, CCN, BookingDate and BookingRelDate) are all concatenated together*

When this value is printed in PROC REPORT, the formatting information does not print but is applied to the other parts of the value.

This method of inline formatting can be used anywhere text is displayed: titles, footnotes, variable values, etc. It gives you a great deal of control over the appearance of your output.

## Special Escape Sequences

In addition to S={}, the ESCAPECHAR can also be used to add some special values to your output.

In Exhibit 1/Item 3 we see a superscript on the footnote at the bottom of the page. Superscripting is achieved with the escape sequence {super nn}, where nn is the value to be superscripted. The code used in Item 3 shows that we can just add the escape sequence to the footnote text.

```
footnote1 '^{{super 1}}Totals may include contract beds';
```

The 1 is superscripted at the beginning of the text and, again, the escape sequence does not print. As you can guess, there is also a {sub nn} sequence to subscript values.

Exhibit 1 also shows another use of superscripts. Item 1 shows a superscript in a column header. The superscript value is actually contained in the label of the format for these values.

```
value securelocation (notsorted)
  1.3 = 'Main Jail - Wall St'
  1.6 = 'Main Jail - Oakes St'
  2 = 'The Ridge'
  3 = 'Camp Evergreen'
  4 = 'Contract Beds'
  9 = 'Subtotal^Secure Beds~{{super 1}}'
  9.1 = 'Subtotal^Community Corrections'
  9.2 = 'Total~{{super 1}}';
```

*The superscript designations {super 1} can be added to the format labels and will be applied whenever the formatted values are displayed*

As we've already seen, anywhere text can be generated the escape sequences can be used.

A topic which has generated a number of SUGI papers is putting dynamic page numbers on your output. This is a paper topic no more as it now only an escape sequence added to your titles or footnotes. There are two escape sequences that we'll demonstrate for included page numbers on your output.

A number of the exhibits included in this paper have page numbers – we'll look at those shown on Exhibit 4/Item 3.

```
footnote h=8pt f=Arial j=1 "%sysfunc(today()),mmddyy10.)"
j=r "^{{thispage}} / ^{{lastpage}}";
```

*This footnote contains two pieces, the left justified date and the right justified page numbers.*

*The {thispage} sequence resolves to the current page number. The {lastpage} sequence resolves to the page number of the last page, i.e., the number of pages.*

We can use the {thispage} and {lastpage} sequences together to get the nice "page x of y" that we've struggled so many years for.

One last special escape sequence to note is wrapping to a marker. Exhibit 5/Item 2 shows a nice set of footnotes indented under a header. All of the footnotes in this example are done with a single footnote statement.

We will use two escape sequences here to get the footnotes looking this way. First, the -2n sequence produces a line break in the text. (A quick side note here – does the fact that there are a whole bunch of nicely arranged footnote lines generated from a single footnote statement give you a clue that you'll never have to worry about the 10 footnote limit again!). But, we can use -2n in conjunction with another escape sequence (m) to get the indented effect that we see.

The m escape sequence sets a "marker" that the -2n will wrap to. This is more easily explained with the code that generated the example.



First, notice that this is all one footnote statement. Second, if you look between the code and the exhibit you will see that the individual physical line in the code do not affect the output – they are there only to make them fit on my screen when I'm writing the code. Now, let's look at the use of the two escape sequences.

footnote1 j=1 h=8pt f='Arial'

*Notice the ^m in the middle of the word "Definitions." This is an escape sequence, that will not print, which marks the place that any subsequent line breaks (-2n) should wrap to.*

```
'Defi^mitions:'
'^-2nPAO Referral: Referral from police - Source: PAO'
'^-2nCase Credit: Source: OPD'
'^-2nFiling: Referral filed in Superior Court - Source: Superior Court - SCOMIS'
'^-2nResolution: Cases adjudicated in Superior Court by any method (plea, verdict, dismissal or other) '
'- Source: Superior Court - SCOMIS'
'^-2nGuilty Plea: any case that is resolved with a plea irrespective of when in the process the plea '
'occurs (even during trial).'

```

*The -2n characters denote where a line break should take place. Since we've set a marker (m) in the text, all the line breaks will wrap to that mark – right under the "n" in "Definition" in this case. If there was no marker character the -2n would still cause a line break, with the text wrapping to the beginning of the next line.*

## ODS PDF TEXT

There is new way you can embed text in a document. The ODS PDF TEXT command is like a PUT statement that you can use anywhere. The syntax is simple,

```
ods pdf text='<text goes here>';
```

The output of the command will be placed on the page immediately following the last procedure output. It would be a relatively useless command if all it did was place plain text. I bet you've already figured out that all the inline style functionality provided by ESCAPECHAR can be used in PDF TEXT.

Exhibit 6 shows an entire page generated using nothing but PDF TEXT. This offers a wonderful method of adding explanatory text to your reports without having to edit them after the fact.

*We start out by turning on bold, 14-point font for the header of the line of text and then, turn off the bold for the rest of the text.*

```
ods pdf text="^S={font_weight=bold font_size=14pt}A. ^mOperation Definition:^S={font_size=14pt}
The proportion of people in the general population who received publicly funded Outpatient
mental health services in the Fiscal Year by RSN.";
```

*Note that we've placed a marker (m) here, but there are no line breaks (-2n) specified in the text. The text will wrap to the mark even if the line break is caused by an automatic line break due to the length of the text.*

## OUTPUT FROM MORE THAN ONE PROCEDURE ON A PAGE

With SAS/Graph we've had PROC GREPLAY and the VPOS/HPOS/VSIZ/HSIZE options that have allowed putting output from more than one graphic procedure on the page at one time. This has always been more of a challenge with output from text-based reporting procedures. We'll look at two methods now available with ODS which allows us to do just that.

**STARTPAGE=NEVER**

By default, any time a new procedure is run a new page will be created in the output document. There is an option (STARTPAGE=) on the ODS PDF statement which controls that page generation.

The STARTPAGE=NEVER option tells ODS that you don't want a page generated between procedures. You still get a new page when the current page fills up, but new procedure output will start immediately following previous output.

Exhibit 5 shows an example of how this works. The data at the top of the page is generated from a PROC REPORT. The data at the bottom of the page is from a second PROC REPORT. The ODS PDF statement contained a STARTPAGE=NEVER so that the output from both procedures showed up on the same page.

There is a STARTPAGE=NOW option you can use to force a new page whenever you want it, which is handy if you've turned the startpage off. You can set the startpage to NOW with a ODS PDF statement that does not reference a file, so will be applied to the current PDF file being created. For example,

```
ods pdf file='my pdf file.pdf' startpage=never;
```

```
<procedure 1>
```

```
<procedure 2>
```

```
ods pdf startpage=now;
```

```
<procedure 3>
```

There would be no page break between the output from procedures 1 and 2 above, but output from procedure 3 would begin on a new page.

It was noted earlier that there would be one more STYLE= example when we discussed multiple outputs on a page. In Exhibit 5, the single columns in the upper report need to be centered over the groups of three columns in the lower report. We can do this with STYLE= options on the DEFINE statements in the two procedures.

*The important thing to note here is the CELLWIDTH values: in the first PROC REPORT, the header column is set to 45 and the "data" columns (Value and Blank) have values of 29 and 17 (46 total).*

```
columns Type DateIndex, (Value Blank);
define Type / group ' ' left style=[cellwidth=45mm font_weight=bold];
define DateIndex / ' ' across order=internal format=$ReportDateLabels. center;
define Value / ' ' sum format=CommaUnknown. style=[just=dec cellwidth=29mm] center;
define Blank / ' ' sum format=Blank. style=[cellwidth=17mm];
```

```
columns ResolutionGroup ResolutionCode DateIndex, (Value Pct MedianDays Blank);
define ResolutionGroup / group noprint;
define ResolutionCode / 'Breakdown of ^-2nResolution Dispositions' group style=[cellwidth=45mm];
define DateIndex / ' ' across order=internal format=$ReportDateLabelsBlank. center;
define Value / "N" sum format=CommaUnknown. right style=[cellwidth=12mm];
define Pct / "%" sum format=PercentUnknown. right style=[cellwidth=13mm];
define MedianDays / "Median ^-2nDays" sum style=[cellwidth=13mm];
define Blank / ' ' sum format=Blank. style=[cellwidth=8mm];
```

*We want the columns in the second PROC REPORT to line up with those in the first one. The header column width here is the same (45) and the sum of the "data" columns (Value, Pct, MedianDays and Blank) is the same as above (12+13+13+8=46).*

Notice also that we've made one more use of -2n. In the variable labels for ResolutionCode and MedianDays, we've added a -2n to split the label. Note: in order to fit this all on the page some code has been removed that is part of those labels. This additional information makes the use of the PROC REPORT SPLIT= option unusable in this case.

## ODS LAYOUT

Another method of putting more than one piece of output on the page is with ODS LAYOUT. LAYOUT enables you to specify regions on the page that output will be written to. Exhibit 7 shows a report with output from one PROC SQL, three PROC REPORTS and six PROC GCHARTS. How did we do this one?

The first table is generated with PROC SQL with nothing special added, except that STARTPAGE=NEVER is set so that all the other output shows up on the same page. Then we start with LAYOUT. There are three commands necessary to use ODS LAYOUT.

**ODS LAYOUT START;**

**ODS REGION X=xxx Y=yyy WIDTH=www HEIGHT=hhh;**

**ODS LAYOUT END;**

START and END turn on and off the LAYOUT and REGION specifies the size and position of the page region to write output to. There can be as many regions as you want on the page. There are some important region rules to be aware of:

- regions are not transparent. If they overlap, the first one defined has that space on the page and will overwrite the output beneath it.
- the size of the region is determined by the WIDTH and HEIGHT parameters, not the amount of data sent to the region. If you have a large region set and only one row of data, the region is still large (and may overlay other regions).
- output is not sized to the region. If it doesn't fit, it is truncated. There is a log note warning you of this.
- LAYOUT is limited to one page. There is no spanning of regions or output to additional pages.

With those rules in mind, let's look at the code for Exhibit 7.

```
ods layout start;
ods region width=2.5in height=3in y=.1in x=0in;
  {PROC REPORT code}
ods region width=2.5in height=3in y=.1in x=2.65in;
  {PROC REPORT code}
ods region width=2.5in height=3in y=.1in x=5.5in;
  {PROC REPORT code}
ods layout end;
```

*We can have as many regions as we need. In this case, all the regions have the same size (2.5 by 3 in). The X and Y parameters position the output on the page. Notice that all the regions also have the same Y value, so they will be aligned across the top.*

*Note: the Y value is the distance from the top of the "printable area" to create the region. Since the PROC SQL output has already been sent to the page, the printable area starts below that.*

Notice that our regions do not overlap, the X value on each region is greater than the width of the previous region. Also, as noted above, the Y value is set from the top of the page (0=top of printable area). This is opposite of the Y position values in SAS/Graph, where 0 is the bottom of the page.

ODS LAYOUT is still in it's infancy. There are a number of other options that are experimental and may change. There are examples and news on the SAS web site of other features that are coming that you may want to play with.



## OVERLAYING GRAPHIC OUTPUT ON TABULAR DATA

There are occasions where it's nice to augment tabular output with some graphical elements. With some techniques we've already looked at we can do this. Exhibit 8 shows a PROC REPORT output that has vertical lines setting off groups of columns. This isn't possible to do with PROC REPORT and ODS alone.

The technique used here is to generate the REPORT output and then use an annotate dataset and PROC GSLIDE to create the lines. We can use the STARTPAGE=NEVER option to put the table and "graphic" on the same page.

```
ods pdf file='<file name here.pdf>' startpage=never;
<proc report code here>

data anno;
  length color function $8;

  xsys='5'; ysys='5'; hsys = '4';

  %line(77,6,77,84,black,1,6);
  %line(53,6,53,84,black,1,6);
  %line(29.5,6,29.5,84,black,1,6);
run;

proc gslide anno=anno;
run;
quit;
```

*The STARTPAGE=NEVER allows for the REPORT output and the GSLIDE output to be on the same page.*

*The position of the lines was determined by trial and error. Running the job, tweaking the X and Y parameters, and running the job again until the lines were in the correct position.*

*The PROC REPORT code uses the "blank" column trick discussed earlier to give a little extra space where the lines will be displayed.*

## CONCLUSION

This paper has presented a number of tips and tricks that you can use to enhance to look of your SAS output. There are a number of other options available for ODS in general and PDF output in particular. I'd encourage you to go to the SAS website where there is a wealth of information. Go to [support.sas.com](http://support.sas.com) and click on Communities and Base SAS. There you'll find FAQs, white papers, news and other information on ODS.

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## ACKNOWLEDGEMENTS

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1 – Superscript in column headers

## Exhibit 1

2 – Gaps between data columns

**Snohomish County Department of Corrections**  
**Daily Secure Population**  
**September 2005**

September	Main Jail - Wall St				Main Jail - Oakes St				The Ridge				Subtotal Secure Beds <sup>1</sup>				Subtotal Community Corrections				Total <sup>1</sup>			
	Bookings		Releases		Percent Change		Percent Change		Percent Change		Percent Change		Percent Change		Percent Change		Percent Change		Percent Change		Percent Change			
	2005	2004	2005	2004	2005	2004	2005	2004	2005	2004	2005	2004	2005	2004	2005	2004	2005	2004	2005	2004	2005	2004		
1	82	69	448	532	-15.7%	590	156	1,038	888	50.8%	75	54	38.8%	1,113	742	50.0%								
2	73	67	458	542	-15.4%	600	147	1,058	889	53.5%	74	58	27.5%	1,132	747	51.5%								
3	65	47	430	544	-20.9%	626	162	1,058	888	51.7%	76	59	31.0%	1,132	754	50.1%								
4	38	57	475	538	-11.7%	591	150	1,068	888	54.9%	78	60	30.0%	1,144	748	52.9%								
5	51	44	469	554	-15.3%	585	150	1,054	704	46.7%	78	59	34.4%	1,132	762	48.5%								
6	75	87	477	569	-16.1%	593	144	1,070	713	50.0%	73	55	32.7%	1,143	788	48.8%								
7	83	91	454	593	-23.4%	601	139	1,055	732	44.1%	76	53	43.3%	1,131	785	44.0%								
8	73	81	468	559	-16.2%	578	141	1,046	700	49.4%	77	50	54.0%	1,123	750	49.7%								
9	68	72	447	562	-20.4%	591	135	1,038	897	48.9%	77	51	50.9%	1,115	748	49.0%								
10	44	44	451	545	-17.2%	578	151	1,029	888	47.8%	76	57	33.3%	1,105	753	46.7%								
11	36	45	444	565	-21.4%	589	149	1,033	714	44.6%	75	62	20.9%	1,108	776	42.7%								
12	101	70	448	567	-20.9%	576	153	1,024	720	42.2%	76	58	31.0%	1,100	778	41.3%								
13	67	78	468	563	-18.8%	586	151	1,053	714	47.4%	76	59	28.8%	1,129	773	46.0%								
14	85	87	448	557	-19.5%	592	150	1,040	707	47.1%	75	59	27.1%	1,115	786	45.5%								
15	72	93	425	535	-20.5%	583	145	1,008	880	48.2%	100	63	58.7%	1,108	743	49.1%								
16	80	64	433	539	-19.6%	588	134	1,021	873	51.7%	76	93	-18.2%	1,087	788	43.2%								
17	47	36	440	522	-15.7%	604	144	1,044	866	56.7%	75	59	27.1%	1,119	725	54.3%								
18	36	38	438	528	-17.0%	612	148	1,050	876	55.3%	75	61	22.9%	1,125	737	52.8%								
19	77	110	455	531	-14.3%	590	153	1,045	884	52.7%	74	61	21.3%	1,119	745	50.2%								
20	65	78	457	543	-15.8%	588	148	1,025	891	48.3%	72	59	22.0%	1,097	750	46.2%								
21	108	89	435	521	-16.5%	561	143	998	864	50.0%	73	59	23.7%	1,069	723	47.8%								
22	67	100	426	517	-17.6%	567	142	993	859	50.6%	102	62	64.5%	1,065	721	51.8%								
23	81	69	428	535	-20.0%	558	141	988	876	45.8%	72	108	-32.0%	1,058	782	36.2%								
24	35	35	442	530	-16.6%	567	145	1,009	875	49.4%	72	68	9.0%	1,081	741	45.8%								
25	44	32	443	524	-15.4%	564	144	1,007	868	50.7%	71	64	10.9%	1,078	732	47.2%								
26	78	81	438	541	-19.0%	578	145	1,016	886	48.1%	89	61	13.1%	1,085	747	46.2%								
27	92	73	441	568	-20.9%	576	140	1,017	868	46.7%	70	59	18.0%	1,087	757	43.5%								
28	80	75	420	555	-24.3%	585	131	1,005	888	48.5%	92	59	55.9%	1,097	745	47.2%								
29	72	108	455	554	-17.8%	561	132	1,016	866	48.1%	83	94	-1.0%	1,109	780	42.1%								
30	77	51	427	547	-21.9%	570	130	997	877	47.2%	72	91	-20.8%	1,069	788	39.1%								
MTD	68.3	69.0	446.3	545.7	-18.2%	583.6	144.4	1,029.8	860.1	49.2%	77.3	63.8	21.5%	1,107.2	753.7	48.8%								
QTD	68.0	65.6	446.9	545.3	-20.9%	550.4	151.4	997.3	716.7	39.1%	75.8	61.1	23.9%	1,073.1	777.8	37.9%								
YTD	60.7	59.5	543.7	594.9	-8.6%	226.4	81.3	851.4	773.0	10.1%	71.7	60.5	-18.4%	923.1	833.5	10.7%								

<sup>1</sup> Totals may include contract beds

3 – Superscript in footnote text

## Exhibit 2

**Arrestee Drug Abuse Monitoring (ADAM) Report**  
**Drug Test Results, By Drug By Site**  
**Adult Male Arrestees, 2000 through 2003 - Revised Weights**

Primary City	Percent of Arrestees Who Tested Positive for:						
	Any NIDA-5 Drug <sup>1</sup>	Marijuana	Cocaine Crack	Opiates Heroin	PCP	Methamphetamine	Multiple NIDA-5 Drugs
Albany, NY	67.3%	49.4%	29.3%	5.3%	0.5%	0.0%	16.6%
Albuquerque, NM	64.1%	39.1%	36.5%	12.4%	0.4%	8.1%	26.4%
Anchorage, AK	57.0%	42.8%	21.6%	4.4%	0.0%	0.8%	11.5%
Atlanta, GA	70.1%	38.2%	48.0%	2.9%	0.0%	1.7%	19.7%
Birmingham, AL	64.4%	43.5%	33.7%	7.9%	0.0%	0.6%	19.3%
Boston, MA	76.2%	44.5%	34.8%	17.8%	0.0%	0.0%	18.0%
Charlotte, NC	63.3%	44.3%	34.3%	2.9%	0.0%	0.4%	17.5%
Chicago, IL	83.0%	49.0%	46.2%	25.7%	2.5%	0.5%	34.7%
Cleveland, OH	70.5%	48.2%	35.9%	4.4%	7.7%	0.5%	23.8%
Dallas, TX	57.9%	36.2%	30.6%	6.0%	3.3%	4.1%	18.6%
Denver, CO	63.1%	40.6%	34.9%	4.7%	0.6%	3.7%	19.4%
Des Moines, IA	58.2%	43.3%	10.3%	2.4%	1.3%	21.3%	19.0%
Detroit, MI	65.9%	47.6%	23.5%	7.7%	0.0%	0.0%	11.6%
Ft. Lauderdale, FL	61.6%	43.6%	30.5%	2.2%	0.0%	0.0%	14.6%
Honolulu, HI	62.0%	31.1%	12.3%	4.6%	0.1%	39.3%	22.2%
Houston, TX	56.3%	35.6%	30.0%	6.5%	3.9%	0.9%	16.6%
Indianapolis, IN	65.0%	47.8%	33.0%	4.4%	1.3%	1.0%	20.8%
Kansas City, MO	69.2%	49.5%	33.4%	0.3%	8.7%	1.0%	22.7%
Laredo, TX	52.1%	26.4%	39.3%	9.8%	0.0%	0.0%	20.2%
Las Vegas, NV	62.0%	34.1%	22.8%	5.4%	2.1%	22.4%	20.8%
Los Angeles, CA	66.4%	39.0%	26.0%	3.0%	1.0%	24.8%	25.3%
Manhattan, NY	75.5%	41.9%	43.8%	16.9%	1.7%	0.2%	25.4%
Miami, FL	62.7%	38.6%	44.9%	3.4%	0.0%	0.1%	23.7%
Minneapolis, MN	68.2%	51.9%	29.0%	4.8%	2.2%	2.8%	20.5%
New Orleans, LA	70.6%	46.0%	40.3%	15.3%	0.1%	1.0%	25.8%
Oklahoma City, OK	70.4%	63.8%	24.1%	3.7%	4.1%	12.1%	24.3%
Omaha, NE	66.1%	47.9%	20.9%	3.2%	0.5%	17.6%	21.5%
Philadelphia, PA	70.5%	44.8%	34.7%	13.0%	8.7%	0.2%	26.1%
Phoenix, AZ	69.9%	38.6%	27.6%	5.5%	1.3%	26.4%	26.9%
Portland, OR	66.7%	36.2%	25.0%	12.8%	0.7%	21.9%	24.8%
Rio Arriba, NM	71.7%	44.4%	35.4%	26.9%	0.0%	1.9%	30.0%
Sacramento, CA	75.1%	49.2%	18.8%	6.2%	1.2%	31.7%	28.4%
Salt Lake City, UT	55.1%	33.0%	17.2%	6.7%	0.0%	20.2%	19.0%
San Antonio, TX	55.6%	39.1%	28.0%	9.2%	0.0%	2.3%	20.0%
San Diego, CA	62.2%	38.3%	12.0%	5.8%	0.8%	29.2%	21.4%
San Jose, CA	58.2%	35.6%	12.8%	3.5%	2.8%	26.3%	21.3%
Seattle, WA	65.9%	36.0%	35.0%	9.4%	2.2%	10.6%	23.0%
Spokane, WA	63.1%	43.0%	16.0%	8.0%	1.0%	23.7%	23.5%
Tampa, FL	59.6%	45.2%	29.7%	3.7%	0.2%	1.5%	19.4%
Tucson, AZ	68.6%	44.6%	40.2%	6.3%	0.6%	8.6%	27.9%
Tulsa, OK	69.0%	51.8%	20.6%	4.8%	2.1%	16.1%	23.2%
Washington, DC	64.2%	37.6%	27.2%	9.9%	10.4%	0.4%	19.0%
Woodbury, IA	40.8%	29.8%	7.3%	0.7%	0.0%	14.4%	10.8%
<b>Median</b>	<b>65.0%</b>	<b>43.0%</b>	<b>29.7%</b>	<b>5.5%</b>	<b>0.7%</b>	<b>2.3%</b>	<b>21.3%</b>

1 – Groups of rows

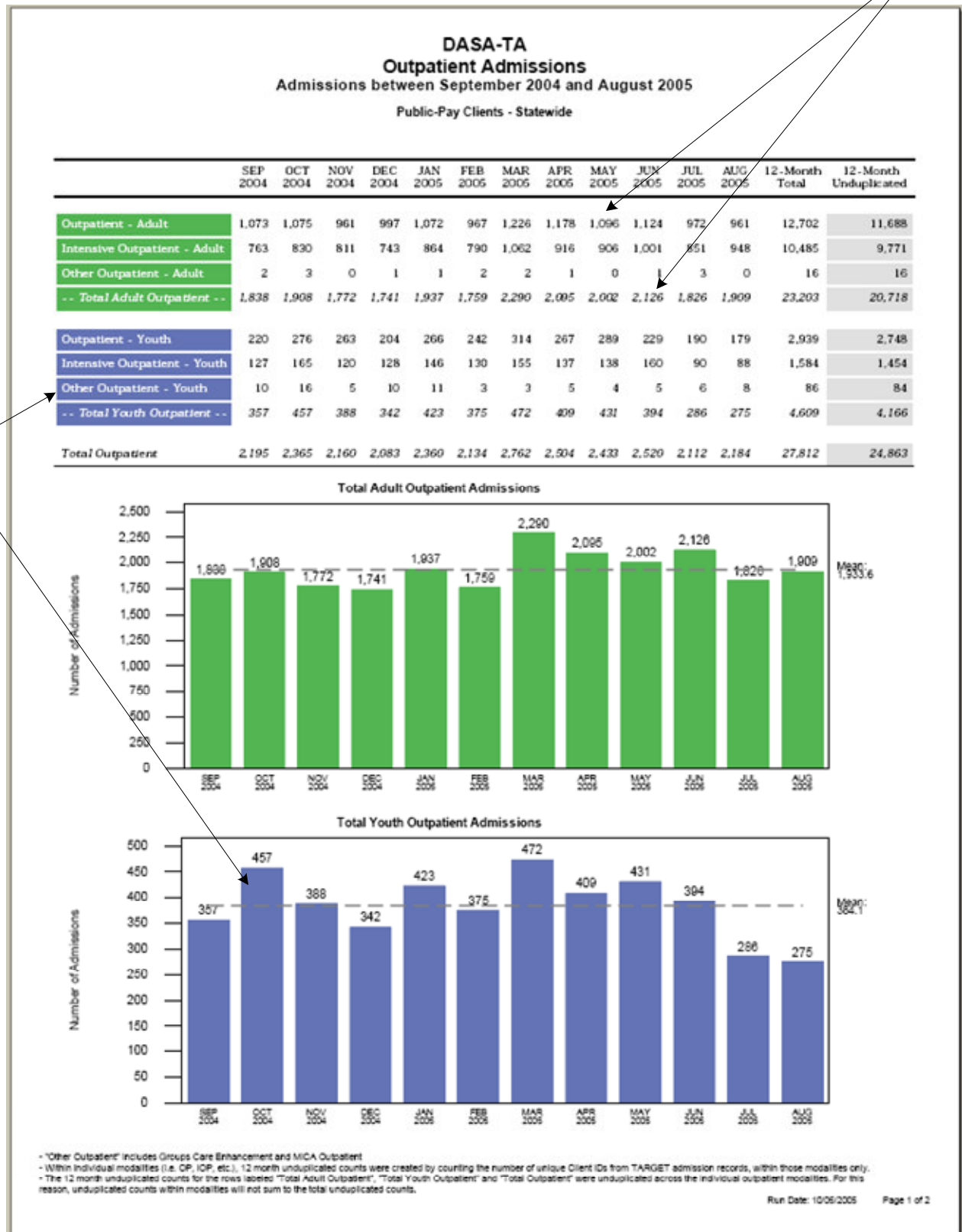
2 – gap color and size

\* Results are suppressed if fewer than 25 arrestees were tested for a particular drug.

<sup>1</sup> The five drugs listed here are referred to as the NIDA-5, established by the National Institute on Drug Abuse as a standard panel of commonly used illegal drugs.

## Exhibit 3

1 – Differential text style



2 – Text background matches graph bars



## Exhibit 4

1 – Style info  
embedded in data

3 – Page  
numbers

2 – Embedded  
style info in  
LINE statement

WA State Department of Corrections Contract Violators  
DAJD Detail Billing Report

September 2005

BA: [REDACTED] CCN: [REDACTED] Booking Date: 08/08/2005 Release Date: 09/13/2005									
From-To	9/8-9/13	Days	6	OAA only	Chg Description	Status	RCW	TOW ORI	Chg Dt-Chg RelDt
---					1 COMM. PLACEMENT ARR	PHS	9.94A.195	FS WA034015G	08/08/05-09/13/05
Total DOC Days for Inmate: 6									
BA: [REDACTED] CCN: [REDACTED] Booking Date: 08/24/2005 Release Date: 09/13/2005									
From-To	9/1-9/13	Days	13	OAA only	Chg Description	Status	RCW	TOW ORI	Chg Dt-Chg RelDt
---					1 COMM. PLACEMENT ARR	PHS	9.94A.195	FS WA034015G	08/24/05-09/13/05
Total DOC Days for Inmate: 13									
BA: [REDACTED] CCN: [REDACTED] Booking Date: 08/28/2005 Release Date: .									
From-To	9/28-9/30	Days	3	OAA only	Chg Description	Status	RCW	TOW ORI	Chg Dt-Chg RelDt
---					1 COM PLMT ARR*ASSLT2	PHS	9.94A.195	FS WA034015G	08/28/05- .
Total DOC Days for Inmate: 3									
BA: [REDACTED] CCN: [REDACTED] Booking Date: 08/24/2005 Release Date: 09/22/2005									
From-To	9/1-9/7	Days	7	OAA only	Chg Description	Status	RCW	TOW ORI	Chg Dt-Chg RelDt
---					1 ESCAPE/VUCSA	PHS	9.94A.195	FS WA034015G	08/24/05-09/08/05
---	9/8-9/22	Days	15	OAA only	2 COMM. PLACEMENT REVO	SJS	9.94A.270	FS WACORR000	08/08/05-09/22/05
Total DOC Days for Inmate: 22									
BA: [REDACTED] CCN: [REDACTED] Booking Date: 08/03/2005 Release Date: 08/22/2005									
From-To	9/8-9/18	Days	10	OAA only	Chg Description	Status	RCW	TOW ORI	Chg Dt-Chg RelDt
---					1 INVEST THEFT	INV	2389	IB WASPD0000	09/03/05-09/08/05
---	9/19-9/22	Days	4	OAA only	2 COMM. PLACEMENT ARR	PHS	9.94A.195	FS WA034015G	08/07/05-09/19/05
---					3 COMM. PLACEMENT REVO	PHR	9.94A.270	FS WA034015G	09/19/05-09/22/05
Total DOC Days for Inmate: 14									

10/05/2005

1/159



1 – Multiple sets of  
columns aligned

## Exhibit 5

**King County Felony Case Processing Summary Report**  
**Based on Resolutions through August 2005**

	2005			YTD through August 2004			YTD through August 2003			2004			2003		
	YTD	N	%	Median Days	N	%	Median Days	N	%	Median Days	N	%	Total	N	%
<b>PAO Referrals</b>	8,610						9,815						14,462		
<b>Case Credits Assigned</b>	6,291						5,836						8,813		
<b>Filings</b>	6,557						6,655						10,326		
<b>Resolutions</b>	6,144						5,975						8,944		
<b>Breakdown of Resolution Dispositions</b>															
<b>Guilty Plea</b>	4,825	78.5%		70.0	5,420	78.6%	63.0	4,925	82.4%	52.0	7,751	78.9%	63.0	7,335	82.0%
Prior to Trial Setting	3,549	57.9%		53.0	3,490	50.6%	42.0	3,195	53.5%	35.0	5,090	51.8%	43.0	4,795	53.6%
After 1st trial date set	1,276	20.9%		135.0	1,930	28.0%	120.0	1,730	29.0%	110.5	2,661	27.1%	124.0	2,540	28.4%
<b>Dismissal</b>	971	15.8%		106.0	1,111	16.1%	82.0	729	12.2%	77.0	1,545	15.7%	83.0	1,143	12.8%
Prior to Trial Setting	650	10.6%		86.0	650	9.4%	49.5	422	7.1%	42.0	947	9.6%	52.0	673	7.5%
After 1st trial date set	321	5.2%		130.0	461	6.7%	132.0	307	5.1%	118.0	598	6.1%	132.0	470	5.3%
<b>Trial</b>	336	5.5%		230.5	353	5.1%	201.0	313	5.2%	176.0	512	5.2%	201.5	445	5.0%
<b>Other</b>	12	0.2%		123.0	16	0.2%	0.0	8	0.1%	186.0	22	0.2%	0.0	21	0.2%

## Definitions:

PAO Referral: Referral from police - Source: PAO

Case Credit: Source: OPD

Filing: Referral filed in Superior Court - Source: Superior Court - SCOMIS

Resolution: Cases adjudicated in Superior Court by any method (plea, verdict, dismissal or other) - Source: Superior Court - SCOMIS

Guilty Plea: any case that is resolved with a plea irrespective of when in the process the plea occurs (even during trial).

Trial: any case that is resolved with a trial verdict.

Dismissal: any case that is dismissed at any time in the process (including those dismissals that occur during trial).

Other: any case resolution that is not resolved via plea or trial - example is a "change in venue".

Median Days: Median days from filing to resolution. The median is the number of days where half the cases were longer and half the cases were shorter.

Page 1 of 14  
Run Date: 08/23/2005

## Exhibit 6

<b>Access I.A. Community Outpatient Penetration Rates - General Population</b>
--

**A. Operation Definition:** The proportion of people in the general population who received publicly funded Outpatient mental health services in the Fiscal Year by RSN.

**Operational Measure:** This is calculated by dividing the number people who recieved the outpatient mental health services during a Fiscal Year by an estimate of the general population as of April 1st of the calendar year.

**Formulas:**

$$\frac{\text{Number of person receiving the outpatient mental health services during the Fiscal Year by RSN}}{\text{Estimate of people in the general population in that Fiscal Year by RSN}}$$

**Data Notes:**

2002 and 2003 data excludes crisis hotline calls, 24-hour crisis services , and residential services as specified in the January 2002 Data Dictionary. Reporting of these services varies across the state.

The State total is unduplicated clients across all RSNs (i.e., each person is only counted once in the State).

The RSN count shows the number of unduplicated clients within each of RSN (i.e., one person is counted in each RSN in which they received services.).

Counts are of people, not admissions, episodes, or units of service.

Population are from the Washington State Office of Financial Management (OFM). The calendar year of estimate used is the same as the analysis year. For example, for Fiscal Year 2004, Calendar year 2004 estimates would be used.

OFM releases complete population estimates every alternate year. The intervening years were estimated by assuming a constant rate of change between those years.

## Exhibit 7

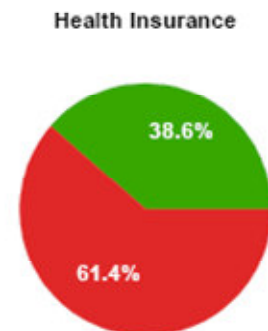
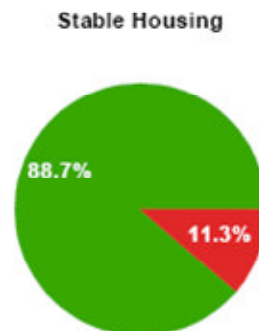
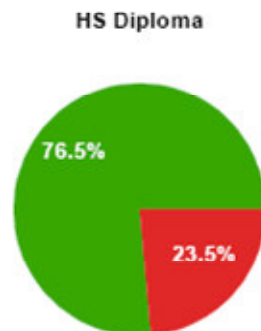
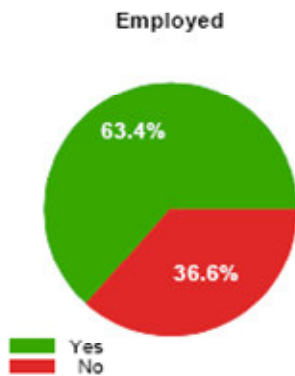
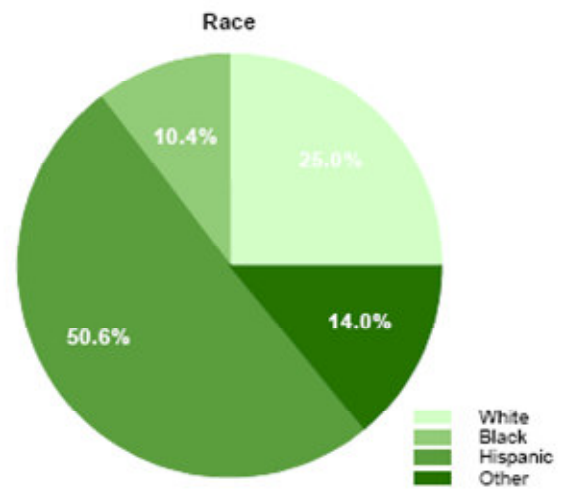
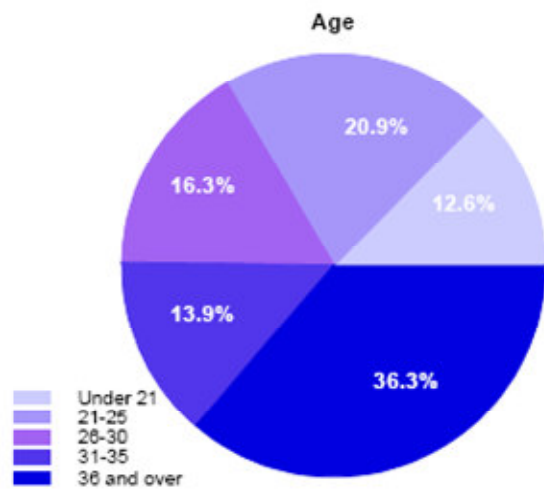
## Arrestee Drug Abuse Monitoring (ADAM) Report Demographic and Sociodemographic Characteristics

ADAM Site: San Jose, CA  
 Interview Year: 2000 through 2003  
 Sample: Adult Male  
 Sample Size (unweighted): 3,164  
 Breakout Category: None  
 Analysis Weights: Revised Weights

Age	
Under 21	12.6%
21-25	20.9%
26-30	16.3%
31-35	13.9%
36 and over	36.3%

Race	
White	25.0%
Black	10.4%
Hispanic	50.6%
Other	14.0%

Other Characteristics	
Unemployed	36.6%
No High School Diploma	23.5%
Unstable Housing	11.3%
No Health Insurance	61.4%



10/05/2005

## Exhibit 8

# Snohomish County Department of Corrections Capacity Variance Report

September 2005

Main Jail - Wall St					Main Jail - Oakes St					The Ridge					Work Release				
Male		Female		Total	Male		Female		Total	Male		Female		Total	Male		Female		Total
2005	2004	2005	2004	2005	2005	2004	2005	2004	2005	2005	2004	2005	2004	2005	2005	2004	2005	2004	2005
September	477	477	0	0	480	490	160	160	640	140	140	40	40	180	48	48	10	10	58
Capacity <sup>1</sup>	477	477	0	0	480	490	160	160	640	140	140	40	40	180	48	48	10	10	58
Daily counts are over/under capacity																			
1	-31	-17	2	72	-21	-29	-29	-50	-16	-8	-24	-3	-10	-2	-7	-5	-17	-5	-17
2	-22	-5	3	70	-13	-27	-27	-40	-23	-10	-33	-3	-7	-2	-7	-5	-14	-5	-14
3	-48	-1	1	68	15	-29	-29	-14	-18	-10	-28	-4	-8	1	-6	-3	-14	-3	-14
4	-7	-12	5	73	-21	-28	-28	-49	-18	-12	-30	-3	-7	2	-6	-1	-13	-1	-13
5	-8	2	75	8	-27	-28	-28	-55	-17	-13	-30	-3	-8	2	-6	-1	-14	-1	-14
6	-4	15	4	77	-21	-26	-26	-47	-22	-14	-36	-4	-10	-2	-6	-6	-16	-6	-16
7	-25	36	2	80	-7	-32	-32	-39	-25	-16	-41	-4	-11	-1	-7	-5	-18	-5	-18
8	-12	15	3	67	-19	-43	-43	-62	-27	-12	-39	-3	-14	0	-7	-3	-21	-3	-21
9	-32	15	2	70	-7	-42	-42	-49	-30	-15	-45	-5	-13	2	-7	-3	-20	-3	-20
10	-31	-2	5	70	-26	-41	-41	-62	-19	-10	-29	-5	-11	1	-5	-4	-16	-4	-16
11	-38	11	5	77	-16	-35	-35	-51	-19	-12	-31	-6	-6	2	-4	-4	-10	-4	-10
12	-31	8	2	82	-32	-29	-29	-64	-14	-13	-27	-5	-9	2	-5	-3	-14	-3	-14
13	-12	9	3	77	-26	-29	-29	-55	-16	-13	-29	-4	-8	1	-5	-3	-13	-3	-13
14	-30	4	1	76	-7	-41	-41	-48	-18	-12	-30	-4	-6	0	-7	-4	-13	-4	-13
15	-82	-9	67	-82	-16	-41	-41	-57	-24	-11	-35	-5	-5	0	-6	-5	-11	-5	-11
16	-49	-11	5	73	-44	-62	-62	-52	-30	-16	-46	-5	-6	0	-5	-5	-11	-5	-11
17	-41	-17	4	62	-37	-45	-45	-36	-22	-14	-36	-6	-8	-1	-5	-7	-13	-7	-13
18	-40	-7	1	58	-39	-51	-51	-28	-12	-20	-32	-4	-7	-2	-4	-6	-11	-4	-11
19	-24	0	2	54	-22	-54	-54	-50	-15	-12	-27	-5	-7	-1	-4	-6	-11	-1	-11
20	-21	10	1	56	-20	-66	-66	-72	-18	-14	-32	-5	-9	4	-4	-9	-13	4	-13
21	-46	-14	4	58	-42	-44	-44	-79	-20	-17	-37	-4	-8	-3	-5	-7	-13	-3	-13
22	-55	-12	4	52	-51	-40	-40	-73	-20	-18	-38	-3	-5	-2	-5	-5	-10	-2	-10
23	-64	-2	5	60	-49	-58	-58	-82	-22	-17	-39	-5	-3	-2	-6	-7	-9	-2	-9
24	-38	-7	3	60	-35	-53	-53	-73	-19	-16	-35	-5	-3	-3	-4	-8	-7	-3	-7
25	-35	-12	1	59	-34	-47	-47	-76	-17	-17	-36	-7	-4	-2	-5	-9	-9	-2	-9
26	-41	0	2	64	-39	-64	-64	-82	-19	-16	-35	-7	-6	-3	-5	-10	-11	-3	-11
27	-41	9	5	72	-36	-81	-81	-64	-24	-16	-40	-6	-8	4	-5	-10	-13	4	-13
28	-58	12	1	66	-57	-78	-78	-55	-32	-17	-49	-3	-8	-3	-6	-6	-14	-3	-14
29	-26	2	4	75	-22	-77	-77	-79	-31	-17	-48	-3	-11	-3	-5	-6	-16	-3	-16
30	-52	-2	2	72	-50	-70	-70	-70	-31	-19	-50	-4	-12	-2	-5	-6	-17	-2	-17
MTD	-33	1	3	68	-24	-33	-33	-56	-22	-14	-36	-4	-8	-1	-5	-5	-13	-1	-13

<sup>1</sup> Capacity is as of the first day of the month

### Appendix A - ODS Style Attributes

Attribute	Description	HTML	RTF	PDF
ABSTRACT=	Specify whether or not graph styles are used in CSS or LaTeX style files.	x		
ACTIVELINKCOLOR=	Specify the color for links that are active.	x	x	
ASIS=	Specify how to handle leading spaces and line breaks.	x	x	x
BACKGROUND=	Specify the color of the background of the table or graph	x	x	x
BACKGROUNDIMAGE=	Specify an image to use as the background.	x		
BODYSROLLBAR=	Specify whether or not to put a scrollbar in the frame that references the body file.	x		
BODYSIZE=	Specify the width of the frame that displays the body file in the HTML frame file.	x		
BORDERCOLOR	Specify the color of the border if the border is just one color.	x		x
BORDERCOLORDARK	Specify the darker color to use in a border that uses two colors to create a three-dimensional effect.	x		x
BORDERCOLORLIGHT	Specify the lighter color to use in a border that uses two colors to create a three-dimensional effect.	x		x
BORDERWIDTH	Specify the width of the border of the table.	x		x
BOTTOMMARGIN=	Specify the bottom margin for the document.	x	x	x
BULLETS=	Specify the string to use for bullets in the contents file.	x		
CELLHEIGHT=	Specify the height of the cell.	x	x	x
CELLPADDING=	Specify the amount of white space on each of the four sides of the text in a cell.	x	x	x
CELLSPACING=	Specify the thickness of the spacing between cells.	x	x	x
CELLWIDTH=	Specify the width of the cell.	x	x	x
CONTENTPOSITION=	Specify the position of the frames in the frame file that displays the contents and the page files.	x		
CONTENTSCROLLBAR=	Specify whether or not to put a scrollbar in the frames in the frame file that displays the contents and the page files.	x		
CONTENTSIZ=	Specify the width of the frames in the frame file that display the contents and the page files.	x		
CONTRASTCOLOR=	Specify the alternate colors for maps. The alternate colors are applied to the blocks on region areas in block maps.	x	x	x
DROPSHADOW=	Specify whether to use a drop shadow effect for text in a graph.	x	x	x
ENDCOLOR=	Specify the end color for a gradient effect in a graph.	x	x	x
FILLRULEWIDTH=	Cause a rule of the specified width to be placed into the space around the text (or entire cell if there is no text) where white space would otherwise appear.			x
FLYOVER=	Specify the text to show in a tool tip for the cell.	x		x
FONT_FACE=	Specify the font to use.	x	x	x
FONT_SIZE=	Specify the size of the font to use.	x	x	x
FONT_STYLE=	Specify the style of the font.	x	x	x
FONT_WEIGHT=	Specify the font weight.	x	x	x
FONT_WIDTH=	Specify the font width compared to the width of the usual design.	x	x	x
FONT=	Specify a font definition.	x	x	x
FOREGROUND=	Specify the color of text or data items	x	x	x
FRAME=	Specify the type of frame to use on an HTML table.	x	x	x
FRAMEBORDER=	Specify whether or not to put a border around the HTML frame for an HTML file.	x		
FRAMEBORDERWIDTH=	Specify the width of the border around the HTML frames for an HTML file.	x		
FRAMESPACING=	Specify the width of the space between HTML frames for HTML files.	x		
GRADIENT_DIRECTION=	Specify the direction of the gradient effect in either the X or Y axis direction to influence the graph background, legend background, charts, walls, floors, etc.	x	x	x
HREFTARGET=	Specify the window or frame in which to open the target of the link.	x		
HTMLCLASS=	Specify the name of the stylesheet class to use for the table or cell.	x		
HTMLCONTENTTYPE=	Provide the value of the content type for pages that you send directly to a web server rather than to a file.	x		
HTMLDOCTYPE=	Specify the entire doctype declaration for the HTML document, including the opening "<!DOCTYPE" and the closing ">".	x		
HTMLID=	Specify an ID for the table or cell.	x		
HTMLSTYLE=	Specify individual attributes and values for the table or cell.	x		
IMAGE=	Specify the image to appear in the background. This image can be positioned or tiled.	x	x	x
INDENT=	Set a numeric value to use as the indentation depth.		x	x
JUST=	Specify justification.	x		x
JUST=	Specify the image's horizontal positioning.	x	x	x
LEFTMARGIN=	Specify the left margin for the document.	x		x



## Appendix A - ODS Style Attributes

Attribute	Description	HTML	RTF	PDF
LINESTYLE=	Specify the line type to use in a graph. You can use SAS/GRAPH line types -46.	x	x	x
LINETHICKNESS=	Specify the thickness (width) of a line that is part of a graph.	x	x	x
LINKCOLOR=	Specify the color for links that have not yet been visited.	x	x	x
LISTENTRYANCHOR=	Specify whether or not to make this entry in the table of contents a link to the body file.	x		
LISTENTRYDBLSPACE=	Specify whether or not to double space between entries in the table of contents.	x		
MARKERSIZE=	Specify the size of the symbol used to represent data values.	x	x	x
MARKERSYMBOL=	Specify the symbol used to represent data values.	x	x	x
NOBREAKSPACE=	Specify how to handle space characters.	x		x
OUTPUTHEIGHT=	Specify the height for graphics in the document.	x	x	x
OUTPUTWIDTH=	Specify the width of the table or of the graph or line thickness.	x	x	x
OVERHANGFACTOR=	Specify an upper limit for extending the width of the column.	x	x	x
PAGEBREAKHTML=	Specify HTML to place at page breaks.	x		
POSTHTML=	Specify the HTML code to place after the HTML table or cell.	x		
POSTIMAGE=	Specify an image to place after the table or cell.	x		x
POSTTEXT=	Specify text to place after the cell or table.	x	x	x
PREHTML=	Specify the HTML code to place before the HTML table or cell.	x		
PREIMAGE=	Specify an image to place before the table or cell.	x		x
PRETEXT=	Specify text to place before the cell or table.	x		x
PROTECTSPECIALCHARACTERS=	Determine how less-than signs (<), greater-than signs (>), and ampersands (&) are interpreted.	x	x	x
RIGHTMARGIN=	Specify the right margin for the document.	x		
RULES=	Specify the types of rules to use in a table.	x	x	x
STARTCOLOR=	Specify the start color for a gradient effect in a graph.	x	x	x
TAGATTR=	Specify text to insert in the HTML	x		
TOPMARGIN=	Specify the top margin for the document.	x	x	x
TRANSPARENCY=	Specify the level of transparency for a graph.	x	x	x
URL=	Specify a URL to link to.	x	x	x
VISITEDLINKCOLOR=	Specify the color for links the visited links.	x	x	
VJUST=	Specify vertical justification.	x	x	x
WATERMARK=	Specify whether or not to make the image that is specified by BACKGROUNDIMAGE= into a "watermark." A watermark appears in a fixed position as the window is scrolled.	x		

Using Styles in...

### PROC REPORT

can be placed on PROC REPORT, **STYLE(HEADER)=[style attributes]**  
 DEFINE or COMPUTE statements **STYLE(COLUMN)=[style attributes]**

### PROC TABULATE

can be placed on the CLASS,  
 VAR and CLASSLEV statements **STYLE=[style attributes]**  
 or as a BOX= option value

### PROC TABULATE

as part of a TABLE definition **[STYLE=[style attributes]]** note extra brackets

### PROC PRINT

can be placed on the PROC PRINT **STYLE(HEADER)=[style attributes]**  
 or VAR statements **STYLE(COLUMN)=[style attributes]**

Escape sequences

**^S=[style attributes]** assuming ^ as ODS ESCAPECHAR