Quantitative Assessment Methods
Victor W. Barr, Ph.D.
Dan Reilly
Quantitative Assessment Methods

This program will focus on guiding you through the process of planning for gathering and analyzing quantitative data. Quantitative data is data that can be analyzed as numbers as opposed to qualitative data. In addition, this session will briefly cover issues of how to make decisions about how such data is gathered, analyzed and used to make decisions and arguments. Specific attention will be focused on how to build the structures that make gathering such data easier.

Learning Outcomes Examples

Participants will learn a process of making a decision about what data to collect and how to simplify the collection of information.

Participants will be able to apply the methodologies of quantitative data to their own area of student affairs.

Participants will be better prepared to make decisions about how they will plan for using and presenting data.
"If we are to convince our colleges and universities of the worth of our centers we must begin to evaluate the outcomes of our services.

This is especially important as we move into times of budgetary restraint." (Victor Barr, 1997)
Quantitative vs. Qualitative.

- I think of the two (quantitative versus qualitative) as complementary ways of gathering and presenting evidence to support your case.

- Qualitative is both a first step (What's going on here? or Exploratory?)

- and frequently gives us the data to tell the story. It though can mostly tell us perceptions

- Quantitative helps us to look below the surface and see what is going on in a more definable way. It also provides data that for some is more convincing.
Need to think through ahead of time – What story will I need to tell and what data is needed to tell the story and be convincing?
First Decision Points

• What point do you need to be able to make?
• Who is your audience(s)?
• How do you want to make your point?

None stand alone
What point do you need to be able to make?

- What is the question at hand and how can you get to the best data to be able to answer it?

Question: Counseling Center
Are you really that busy?
Who is your audience(s)?

- Is it one targeted audience?
- Are there more than one?
- For each audience what type(s) of data are convincing?

Counseling Center

Question: Are you really that busy?

Audience: VC Rogers, Departmental Review, Chancellor
Who is your audience(s)?
For each audience what type(s) of data are convincing?

Counseling Center Audience:
VC Rogers
Departmental Review
Chancellor
What type of data is the best way to make your point?

- Survey
- Usage data
- Process data
- Comparison data
- Outcome data

At its heart evaluation is a three step sequence

Objectives --------> Means----------> Measures
Data Issues

- Validity of measures
- Ease of use of measures
- Data standardization – at UT and External to UT
Counseling Center Data Sources

The Association for University and College Counseling Center Directors Annual Survey

Reporting Period: September 1, 2008 through August 31, 2009

Victor Barr, Ph.D.
Director, Counseling & Psychological Services
University of Tennessee at Knoxville

Robert Zanda, Ph.D.
Director, Counseling and Wellness Services
Associate Professor, School of Professional Psychology
Wright State University

Brian Krylowicz, Ph.D.
Director, University Counseling Services
Truman State University

Evelyn Winfield, Ph.D.
Director, University Counseling and Testing
Western Michigan University

Question: Are you really that busy?
Audience: VC Rogers, Departmental Review, Chancellor
Methodology: Usage data, Comparison Data.
Evaluations vs. Research

- **Research** is a proving causality and involved tight control, specificity and rigor. It can be artificial – random assignment.

- **Evaluation**, on the other hand, has come the way of technology rather than science. Its accent is not on theory building but on product delivery or mission accomplishment. Its essence is to provide feedback leading to a successful outcome defined in practical, concrete terms.

- “The purpose of evaluation is to improve, not to prove.” (Stufflebeam et al 1978)
Data to collect and how? Creating the Hook

What data will you collect?
How will you set it up easily collect the data?
How do you plan to use the data?
Will data storage be an issue?

Desk drawer is not adequate.

If on-going, keep an eye on the data as you collect it.
Weekly Data Gathered by Counseling Center

<table>
<thead>
<tr>
<th></th>
<th>AL</th>
<th>AM</th>
<th>AN</th>
<th>AO</th>
<th>AP</th>
<th>AQ</th>
<th>AR</th>
<th>AS</th>
<th>AT</th>
<th>AU</th>
<th>AV</th>
</tr>
</thead>
<tbody>
<tr>
<td>71</td>
<td>2009-10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>73</td>
<td>Scheduler</td>
<td>250</td>
<td>254</td>
<td>275</td>
<td>276</td>
<td>258</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>74</td>
<td>Snow</td>
<td>195</td>
<td>198</td>
<td>209</td>
<td>213</td>
<td>196</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>75</td>
<td>Intakes</td>
<td>31</td>
<td>40</td>
<td>11</td>
<td>29</td>
<td>20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>76</td>
<td>Waitlist 1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>77</td>
<td>Waitlist 2</td>
<td>19</td>
<td>14</td>
<td>7</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>78</td>
<td>Waitlist 3</td>
<td>13</td>
<td>18</td>
<td>21</td>
<td>23</td>
<td>15</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>79</td>
<td>Waitlist 4</td>
<td>7</td>
<td>9</td>
<td>7</td>
<td>5</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>80</td>
<td>Group Scl</td>
<td>51</td>
<td>43</td>
<td>57</td>
<td>61</td>
<td>55</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>81</td>
<td>Group Shi</td>
<td>37</td>
<td>29</td>
<td>36</td>
<td>44</td>
<td>45</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>82</td>
<td>Group &amp; Hl</td>
<td>311</td>
<td>297</td>
<td>332</td>
<td>337</td>
<td>314</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>83</td>
<td>Group &amp; L</td>
<td>232</td>
<td>227</td>
<td>245</td>
<td>267</td>
<td>241</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>84</td>
<td>New</td>
<td>SWC Sch</td>
<td>21</td>
<td>23</td>
<td>30</td>
<td>25</td>
<td>24</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>85</td>
<td>New</td>
<td>SWC Sho</td>
<td>7</td>
<td>12</td>
<td>20</td>
<td>13</td>
<td>13</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>86</td>
<td>Waitlist Ti</td>
<td>39</td>
<td>41</td>
<td>35</td>
<td>30</td>
<td>20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>94</td>
<td>Df 05-08</td>
<td>-757</td>
<td>-715</td>
<td>-693</td>
<td>-665</td>
<td>-599</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>95</td>
<td>% Change</td>
<td>87.9%</td>
<td>88.9%</td>
<td>89.6%</td>
<td>90.3%</td>
<td>91.5%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>96</td>
<td>Intake + Shown + Grown</td>
<td>4621</td>
<td>4806</td>
<td>4986</td>
<td>5170</td>
<td>5311</td>
<td>5391</td>
<td>5460</td>
<td>5530</td>
<td>5579</td>
<td>5647</td>
</tr>
<tr>
<td>97</td>
<td>Intake + Shown + Grown</td>
<td>4214</td>
<td>4400</td>
<td>4548</td>
<td>4749</td>
<td>4918</td>
<td>5020</td>
<td>5081</td>
<td>5145</td>
<td>5185</td>
<td>5249</td>
</tr>
<tr>
<td>98</td>
<td>Intake + Shown + Grown</td>
<td>4361</td>
<td>4502</td>
<td>4687</td>
<td>4848</td>
<td>5006</td>
<td>5102</td>
<td>5161</td>
<td>5214</td>
<td>5316</td>
<td>5355</td>
</tr>
<tr>
<td>99</td>
<td>Intake + Shown + Grown</td>
<td>4773</td>
<td>4983</td>
<td>5168</td>
<td>5386</td>
<td>5631</td>
<td>5636</td>
<td>5687</td>
<td>5708</td>
<td>5784</td>
<td>5844</td>
</tr>
<tr>
<td>100</td>
<td>Intake + Shown + Grown</td>
<td>4736</td>
<td>4913</td>
<td>5089</td>
<td>5284</td>
<td>5472</td>
<td>5666</td>
<td>5667</td>
<td>5733</td>
<td>5796</td>
<td>5945</td>
</tr>
<tr>
<td>101</td>
<td>Intake + Shown + Grown</td>
<td>5588</td>
<td>5844</td>
<td>6082</td>
<td>6308</td>
<td>6566</td>
<td>6715</td>
<td>6935</td>
<td>6921</td>
<td>7015</td>
<td>7097</td>
</tr>
<tr>
<td>102</td>
<td>Intake + Shown + Grown</td>
<td>6262</td>
<td>6530</td>
<td>6781</td>
<td>7026</td>
<td>7267</td>
<td>7415</td>
<td>7534</td>
<td>7639</td>
<td>7691</td>
<td>7741</td>
</tr>
<tr>
<td>103</td>
<td>Intake + Shown + Grown</td>
<td>6500</td>
<td>7122</td>
<td>7377</td>
<td>7618</td>
<td>7776</td>
<td>7898</td>
<td>7978</td>
<td>8060</td>
<td>8149</td>
<td>8250</td>
</tr>
<tr>
<td>104</td>
<td>Intake + Shown + Grown</td>
<td>6650</td>
<td>6928</td>
<td>7235</td>
<td>7534</td>
<td>7808</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>105</td>
<td>FY06 to FY10</td>
<td>139.3%</td>
<td>139.6%</td>
<td>140.0%</td>
<td>139.3%</td>
<td>141.2%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>106</td>
<td>FY10 to FY11</td>
<td>96.4%</td>
<td>97.3%</td>
<td>98.1%</td>
<td>98.3%</td>
<td>100.4%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Caveats

• Check your data regularly.
  Verify as you go.
  Will it make your point at the end?
  Does your data make sense?

• Back up your data regularly.
Presenting your data
Things to Remember

• Remember **Point to be made** and **Audience**

• Analyze data

• How will you present your results? What is the venue – report, PowerPoint, etc. Remember **Point to be made** and **Audience**.
Counseling Center
Use of Comparison Group

Question: Are you really that busy?
Audience: VC Rogers, Departmental Review, Chancellor
Methodology: Usage data, Comparison Data.
Use of Comparison Group

What is the total number of sessions provided by your center?

Question: Are you really that busy?
Audience: VC Rogers, Departmental Review, Chancellor
Methodology: Usage data, Comparison Data.
Counseling Center

• Issues to Consider
  – We started putting more emphasis on group counseling 3 years ago.
  – This last fall we made the walk-in briefer and mores structured.
  – We added to out array of services Stress and Wellness Clinic.

Question: Are you really that busy?
Audience: VC Rogers, Departmental Review, Chancellor
Methodology: Usage data, Comparison Data.
Question: Are you really that busy?
Audience: VC Rogers, Departmental Review, Chancellor
Methodology: Usage data, Comparison Data.
Question: Are you really that busy?
Audience: VC Rogers, Departmental Review, Chancellor
Methodology: Usage data, Comparison Data.
Center Utilization Data

Delivered: Triage + Sessions + Group + SWC

Question: Are you really that busy?
Audience: VC Rogers, Departmental Review, Chancellor
Methodology: Usage data, Comparison Data.
Center Utilization Data

Total Sessions
Intake + Shown + Group + SWC

Question: Are you really that busy?
Audience: VC Rogers, Departmental Review, Chancellor
Methodology: Usage data, Comparison Data.
Questions