Crowd-pleasing Data Management for Career Services:  
*Easy, Accessible, Instant, Meaningful*

NATIONAL CAREER DEVELOPMENT ASSOCIATION  
2016 CONFERENCE

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THE CAREER CENTER, UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN
Career Services: No Strangers to Data

The University of Illinois at Urbana-Champaign was one of the top 15 feeder schools for MD applicants.

673 mock interviews completed

164 employers participated in the All-Campus Career Fair

84% of Illinois graduates report securing a first destination within six months of graduation

271,240 unique visitors to The Career Center website

3,848 resumes and cover letters reviewed

50% of medical school applicants from Illinois were accepted in Fall 2013

$55,390 - The average reported annual salary for full-time employed graduates

31,516 students served in 2014-2015 (11% increase from the previous year)

70% of employed graduates indicate that they are working in Illinois

9,821 jobs and 5,462 internships posted on I-Link

“Time that I have spent was valuable. I felt that I was able to diagnose some of my issues and strategies that I didn’t do well in following my career searching.”
Why Collect So Much Data?

(Makela & Rooney, 2012, 2014)

To provide evidence of the value of our programs and services

To celebrate our successes

To support continuous improvement efforts

... just to name a few...
### Today’s Challenge:
How to Make Sense of the Data We Collect?

| **Accessible** | • How are data organized? |
| **Instant**    | • How can we put data at the fingertips of decision makers? *(Career professionals offering the programs and services.)* |
| **Meaningful** | • How can we help users interpret data in trustworthy ways to tell the story of career development programs and services? |
| **Easy**       | • How can we display data or interpretations to make them easy to understand? |
# Types of Assessment Data

(Makela & Rooney, 2014)

<table>
<thead>
<tr>
<th>Assessment Type</th>
<th>Questions Asked</th>
</tr>
</thead>
<tbody>
<tr>
<td>Needs</td>
<td>• What might we do for and with students?</td>
</tr>
<tr>
<td>Participation</td>
<td>• Who did (or did not) participate?</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>• How comfortable or content were participants?</td>
</tr>
<tr>
<td></td>
<td>• How engaged were participants?</td>
</tr>
<tr>
<td>Outcomes</td>
<td>• What do my career intervention(s) do?</td>
</tr>
<tr>
<td></td>
<td>• Why do they exist?</td>
</tr>
<tr>
<td>First destination</td>
<td>• What are the employment, continuing education, &amp; service outcomes of graduating students?</td>
</tr>
<tr>
<td></td>
<td>• What might influence graduates’ success in these areas?</td>
</tr>
<tr>
<td>Academic performance</td>
<td>• How does my career intervention contribute to the academic mission and performance of the institution?</td>
</tr>
<tr>
<td>Learning</td>
<td>• How will students change as a result of what we do?</td>
</tr>
<tr>
<td></td>
<td>• How will students be different after the career intervention?</td>
</tr>
<tr>
<td></td>
<td>• How will students grow, change, or learn?</td>
</tr>
</tbody>
</table>
## Types of Assessment Data

*(Makela & Rooney, 2014)*

<table>
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</tr>
</tbody>
</table>
Quick Reflection: What Does Your Office Collect?

Use the handout provided to brainstorm the **types of assessment data** that your career center or office currently collects.

- When is that data collected?
- How is it stored?
- Who has access to it?
- When is it used?
- How long is it kept?

Share some of your reflections with a neighbor.
## Our Reality Check...

<table>
<thead>
<tr>
<th>LIMITS</th>
<th>NEEDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data saved in different places / formats</td>
<td>VERSUS Accessible and consistent data</td>
</tr>
<tr>
<td>Limited time to spend with data</td>
<td>VERSUS Many questions to address</td>
</tr>
<tr>
<td>Limited expertise in data analysis and technology</td>
<td>VERSUS Tailored data analysis for individual programs and services</td>
</tr>
<tr>
<td>Limited software budget</td>
<td>VERSUS Data management and visualization tools</td>
</tr>
</tbody>
</table>
Our Response?

Embrace data dashboards

- **Communicate** large amounts of data to career professionals
- Provide **24/7 access** to tools to answer data questions
- Facilitate ease and accessibility through **visualizations** with click and play tools
- Put data into the hands of decision makers to:
  - Tell the **stories** of their programs / services
  - Identify **areas of improvement**
  - Communicate **the value of career services**
Exploring Dashboarding Options

Strategy 1: Tableau Software

“Answer questions as fast as you can think of them.” (tableau.com)

HireIllini Data Dashboard

Click interactive graphs to find more specific information about Illinois talent.

Enrollment

- Enrollment by Degrees Level
- Enrollment by Ethnicity
- Enrollment by Gender
- Enrollment by Residency
- Enrollment by College and Ethnicity
- Enrollment by College and Gender
Enrollment by Degrees Level

<table>
<thead>
<tr>
<th>Graduate</th>
<th>Professional</th>
<th>Undergraduate</th>
</tr>
</thead>
<tbody>
<tr>
<td>10,245</td>
<td>964</td>
<td>32,878</td>
</tr>
</tbody>
</table>

Click here this blue area to see more information of undergraduate

Select Year
Fall 2016
Click each bar chart to see enrollment by department level.
Exploring Dashboarding Options, Continued

Tableau represents a “Cadillac version” of dashboarding
If you have the time, $, and technical expertise – go for it!

But what about the typical career center, should we just give up now?

Hold on!
We have the tools for you – Dashboarding with Microsoft Excel.
We’ll demonstrate the process,
and give you templates to create your own!
The Career Center at Illinois collects participation data every day from:

- **Individual Career Services**
  - Individual career counseling (over 2,300 students*)
  - Career advising drop-in (CDA) (over 1,500 students)
  - Resume and cover letter reviews (over 3,600 students)
  - On-campus recruiting (over 700 students)
  - Mock interview (over 500 students)

- **Events or Workshops Career Services**
  - Career fairs and graduate/professional school fairs (over 1,700 students)
  - Various career workshops (over 7,400 students)
  - Promotional events (over 6,400 students)

*All data from 2015-2016 academic year*

**Q:** How many freshmen used drop-in services in the afternoon?

**Q:** Can I have a list of Latino/a juniors attending career fair in March?
Dashboarding Participation Data

Creating your own data dashboards with **Microsoft Excel**!

**Microsoft Excel** is a very common product

- Programming skills are not necessary

**Pivot Tables** allows to create graphs with filters

- Facilitate ease and accessibility through **visualizations** with click

**Filters** can generate customizable data analysis tools

- Provide **24/7 access** to tools to answer data questions
Pivot Tables • Data analysis

Graphs • Visualization

Dashboard • Filters
Yes, this is Excel!

Well...how can I make it?

Let's start with Raw Data
## Raw Data: Understand what types of data you have

### Service Time Collected

<table>
<thead>
<tr>
<th>Date</th>
<th>Service Time</th>
<th>Coded Time</th>
<th>Counseling Status</th>
<th>Service Type</th>
<th>Service Category</th>
<th>Service Name</th>
<th>Delivery Mode</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>4/1/2016</td>
<td>10:00</td>
<td>Morning</td>
<td>Complete</td>
<td>Counseling</td>
<td>Career &amp; Major Exploration</td>
<td></td>
<td>In Person</td>
<td>The Career Center</td>
</tr>
<tr>
<td>5/2/2016</td>
<td>13:33</td>
<td>Morning</td>
<td>Complete</td>
<td>Counseling</td>
<td>Jobs &amp; Internships</td>
<td></td>
<td>In Person</td>
<td>The Career Center</td>
</tr>
<tr>
<td>4/2/2016</td>
<td>14:00</td>
<td>Afternoon</td>
<td>Complete</td>
<td>Counseling</td>
<td>Jobs &amp; Internships</td>
<td></td>
<td>In Person</td>
<td>The Career Center</td>
</tr>
<tr>
<td>5/3/2016</td>
<td>16:30</td>
<td>Afternoon</td>
<td>Complete</td>
<td>Counseling</td>
<td>Jobs &amp; Internships</td>
<td></td>
<td>In Person</td>
<td>The Career Center</td>
</tr>
<tr>
<td>5/10/2016</td>
<td>11:30</td>
<td>Morning</td>
<td>Cancelled</td>
<td>Mock Interview</td>
<td>Jobs &amp; Internships</td>
<td>Phone</td>
<td>The Career Center</td>
<td></td>
</tr>
<tr>
<td>4/28/2016</td>
<td>13:30</td>
<td>Afternoon</td>
<td>Complete</td>
<td>Mock Interview</td>
<td>Jobs &amp; Internships</td>
<td>Phone</td>
<td>The Career Center</td>
<td></td>
</tr>
<tr>
<td>2/17/2016</td>
<td>12:00</td>
<td>Afternoon</td>
<td>Complete</td>
<td>Drop-ins</td>
<td>Jobs &amp; Internships</td>
<td>Phone</td>
<td>The Career Center</td>
<td></td>
</tr>
<tr>
<td>2/18/2016</td>
<td>12:00</td>
<td>Afternoon</td>
<td>Complete</td>
<td>Drop-ins</td>
<td>Jobs &amp; Internships</td>
<td>Phone</td>
<td>The Career Center</td>
<td></td>
</tr>
<tr>
<td>2/18/2016</td>
<td>13:00</td>
<td>Afternoon</td>
<td>Complete</td>
<td>Drop-ins</td>
<td>Resume Reviews</td>
<td>In Person</td>
<td>The Career Center</td>
<td></td>
</tr>
<tr>
<td>4/5/2016</td>
<td>8:45</td>
<td>Morning</td>
<td>Complete</td>
<td>Drop-ins</td>
<td>Career &amp; Major Exploration</td>
<td>In Person</td>
<td>The Career Center</td>
<td></td>
</tr>
<tr>
<td>4/5/2016</td>
<td>11:35</td>
<td>Afternoon</td>
<td>Complete</td>
<td>Counseling</td>
<td>Career &amp; Major Exploration</td>
<td>In Person</td>
<td>The Career Center</td>
<td></td>
</tr>
<tr>
<td>4/29/2016</td>
<td>10:30</td>
<td>Afternoon</td>
<td>Complete</td>
<td>Counseling</td>
<td>Career &amp; Major Exploration</td>
<td>In Person</td>
<td>The Career Center</td>
<td></td>
</tr>
<tr>
<td>4/29/2016</td>
<td>13:59</td>
<td>Afternoon</td>
<td>Complete</td>
<td>Mock Interview</td>
<td>Jobs &amp; Internships</td>
<td>Phone</td>
<td>The Career Center</td>
<td></td>
</tr>
<tr>
<td>4/28/2016</td>
<td>10:52</td>
<td>Afternoon</td>
<td>Complete</td>
<td>Counseling</td>
<td>Jobs &amp; Internships</td>
<td>In Person</td>
<td>The Career Center</td>
<td></td>
</tr>
<tr>
<td>4/25/2016</td>
<td>16:17</td>
<td>Afternoon</td>
<td>Complete</td>
<td>Counseling</td>
<td>Career &amp; Major Exploration</td>
<td>In Person</td>
<td>The Career Center</td>
<td></td>
</tr>
<tr>
<td>3/1/2016</td>
<td>14:07</td>
<td>Afternoon</td>
<td>Complete</td>
<td>Counseling</td>
<td>Graduate &amp; Professional School</td>
<td>In Person</td>
<td>The Career Center</td>
<td></td>
</tr>
<tr>
<td>3/2/2016</td>
<td>13:01</td>
<td>Afternoon</td>
<td>Complete</td>
<td>Counseling</td>
<td>Career &amp; Major Exploration</td>
<td>In Person</td>
<td>The Career Center</td>
<td></td>
</tr>
<tr>
<td>2/17/2016</td>
<td>11:00</td>
<td>Morning</td>
<td>Complete</td>
<td>Drop-ins</td>
<td>Jobs &amp; Internships</td>
<td>In Person</td>
<td>The Career Center</td>
<td></td>
</tr>
<tr>
<td>3/2/2016</td>
<td>11:07</td>
<td>Morning</td>
<td>Complete</td>
<td>Drop-ins</td>
<td>Jobs &amp; Internships</td>
<td>In Person</td>
<td>The Career Center</td>
<td></td>
</tr>
<tr>
<td>2/24/2016</td>
<td>13:00</td>
<td>Afternoon</td>
<td>Complete</td>
<td>Drop-ins</td>
<td>Jobs &amp; Internships</td>
<td>In Person</td>
<td>The Career Center</td>
<td></td>
</tr>
<tr>
<td>3/1/2016</td>
<td>15:04</td>
<td>Afternoon</td>
<td>Complete</td>
<td>Drop-ins</td>
<td>Jobs &amp; Internships</td>
<td>In Person</td>
<td>The Career Center</td>
<td></td>
</tr>
<tr>
<td>3/6/2016</td>
<td>10:44</td>
<td>Morning</td>
<td>Complete</td>
<td>Mock Interview</td>
<td>Jobs &amp; Internships</td>
<td>In Person</td>
<td>The Career Center</td>
<td></td>
</tr>
<tr>
<td>3/1/2016</td>
<td>13:30</td>
<td>Afternoon</td>
<td>Complete</td>
<td>Drop-ins</td>
<td>Graduate &amp; Professional School</td>
<td>In Person</td>
<td>The Career Center</td>
<td></td>
</tr>
<tr>
<td>3/9/2016</td>
<td>11:50</td>
<td>Morning</td>
<td>Complete</td>
<td>Drop-ins</td>
<td>Career &amp; Major Exploration</td>
<td>In Person</td>
<td>The Career Center</td>
<td></td>
</tr>
<tr>
<td>3/8/2016</td>
<td>15:36</td>
<td>Afternoon</td>
<td>Complete</td>
<td>Drop-ins</td>
<td>Jobs &amp; Internships</td>
<td>In Person</td>
<td>The Career Center</td>
<td></td>
</tr>
<tr>
<td>3/10/2016</td>
<td>16:00</td>
<td>Afternoon</td>
<td>Complete</td>
<td>Mock Interview</td>
<td>Jobs &amp; Internships</td>
<td>In Person</td>
<td>The Career Center</td>
<td></td>
</tr>
<tr>
<td>1/25/2016</td>
<td>11:12</td>
<td>Morning</td>
<td>Complete</td>
<td>Drop-ins</td>
<td>Jobs &amp; Internships</td>
<td>In Person</td>
<td>The Career Center</td>
<td></td>
</tr>
<tr>
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<td>12:00</td>
<td>Afternoon</td>
<td>Complete</td>
<td>Drop-ins</td>
<td>Resume Reviews</td>
<td>In Person</td>
<td>The Career Center</td>
<td></td>
</tr>
</tbody>
</table>

### Coded Time:

- Morning/Afternoon
1. Click “Insert”
2. Click “Pivot Table”
3. Click “OK”
Creating Pivot Table -- Step 1

How many students did we serve by individual service category?

Fields: From Your Raw Data
Creating Pivot Table -- Step 2

Drag "Service Category" to Rows
Creating Pivot Table -- Step 3

<table>
<thead>
<tr>
<th>Row Labels</th>
<th>Count of Service Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Career &amp; Major Exploration</td>
<td>24</td>
</tr>
<tr>
<td>Graduate &amp; Professional</td>
<td>32</td>
</tr>
<tr>
<td>Jobs &amp; Internships</td>
<td>82</td>
</tr>
<tr>
<td>(Total)</td>
<td>N of participants for each individual service</td>
</tr>
</tbody>
</table>

Drag “Service Category” to Values
Creating Pivot Chart (Graph) -- Step 1

1. Click “Analyze”

2. Click “PivotChart”

3. Find a chart type

4. Click “OK”
Creating Pivot Chart (Graph) -- Step 2

- Hide “Fields” by clicking a right button of your mouse and clicking “Hide All Filter buttons on chart”

* Based on your preferences, you can change the chart (e.g., color, font)
Creating Dashboard – Step 1

* Add new Excel sheet and insert background color (e.g., orange)
Creating Dashboard – Step 2

* Cut the previously developed chart and paste it here
Adding Filters – Step 1

1. Click “Analyze”
2. Click “Insert Slicer”
3. Select Slices based on your data analysis needs
4. Click “OK”
Adding Filters – Step 2

Click “Junior” to sort
Example Use of Participation Data Dashboards

Marketing Strategies
- Identify key audiences to promote relevant events
- Develop data-informed marketing messages to normalize student experiences (you are alone in seeking help!)
- Provide feedback to campus partners

Program evaluation
- Assess popular service times and locations to make staffing decisions
- Explore usage (and non-use) patterns across programs and services
- Identify programs and services that reach key target populations

Example Infographic for Campus Partners
Dashboard Tools For You

This presentation, with step-by-step dashboarding in Excel tips:
  ◦ go.illinois.edu/NCDA2016-ManageDataPresentation

Data Dashboard Template:
  ◦ go.illinois.edu/NCDA2016-DataDashboard

Full Example Infographic:
  ◦ go.illinois.edu/NCDA2016-ExampleInfographic

NOTE:
  1. The provided files do not contain actual client data. These data are made up to represent what client data might look like, and to demonstrate the functionality of the resources. No confidential data is shared in this demonstration.
  2. These web addresses will be available to you at the end of the presentation as well.
Collecting Satisfaction Data

- Students provide open-ended responses on surveys and brief reflections → but what to do with this?
- Put it in a quotes database!
- Purpose: Quickly access information for
  - Analysis
  - Marketing
Example Visuals

But how to get here?
Step 1: Put Quotes into Excel

Example Column Headers

<table>
<thead>
<tr>
<th>The Quote!</th>
<th>Demographics</th>
<th>Context</th>
<th>Office Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Class Standing</td>
<td>• Source</td>
<td>• Where the Quote Is?</td>
</tr>
<tr>
<td></td>
<td>• College</td>
<td>• Semester</td>
<td>• Date of Use</td>
</tr>
<tr>
<td></td>
<td>• Primary major</td>
<td>• Year</td>
<td>• Name of Staff</td>
</tr>
<tr>
<td></td>
<td>• Gender</td>
<td>• Category</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Ethnicity</td>
<td>• Service Type / Event</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• International Status</td>
<td>• Prompt</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes on quotes:
- We don't edit them.
Step 2: Filter Quotes in Excel

- Select your desired filters
- Copy and paste
- **Clear filters** when you are done
Step 3: Use Quotes

INFOGRAPHICS IN PIKTOCHART

WORD CLOUDS IN TAGXEDO
http://piktochart.com/

Hundreds of templates
Insert images
Create interactive charts
Download and share

Save all your work
Plans start at $40/year
Words mentioned the most are the biggest
Choose colors and fonts
Adjust word orientation
Customize shape
Download and share

Cannot save your work 😞
Free!

http://www.tagxedo.com/
Step 4: Document in Excel

I found a quote but how do I use it?

- Fill in the columns indicating your name, what you used it for
- In the context you use it, use quotation marks and cite it with the student’s demographics
- E.g. “I love TCC because it’s the best office on campus” – Female Senior, LAS

How often is it updated (at The Career Center at Illinois)?

- New quotes are added twice a year
- Old quotes are deleted when they are 4 years old
Quotes Management Spreadsheet Tools For You

Quotes Management Spreadsheet Template:
  ◦ go.illinois.edu/NCDA2016-QuotesSpreadsheet

Example Wordle:
  ◦ go.illinois.edu/NCDA2016-ExampleWordle

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Notes on Ethical Practice

Communication with clients
◦ Informed consent
◦ Confidentiality
◦ Transparency regarding data collection and use

Data storage and protection
◦ How will data be stored and protected?
◦ How long will data be retained? How will it be destroyed?
◦ How will access to data be limited to those who have permissions to view it?
◦ How will we limit data collection to what is actually needed / used?
◦ When should IRB / Human Subjects Approval be sought?

Where can I seek consultation on these matters?
(e.g., knowledgeable colleagues, NCDA Ethics Committee at ethics@ncda.org)
Reflections

Compare the data dashboard template with your assessment data checklist...

- What data do you have access to now?
- What is not in your current data set, but could be added with minimal effort?
- What questions would you like to ask of your data set?
- What questions would you like to ask us?
Assessment & Research in Career Services (ARCS) Network

ARCS facilitates conversations among career services professionals who are engaged in assessment and research within practice environments. We share information and build collaborations to enhance career development programs and services, as well as to further the field of career development.

Join our listserv by sending an email to arcs-request@lists.illinois.edu
Thank you!

Stay in touch at:

Julia Panke Makela  
jpmakela@illinois.edu

Gaeun Seo  
gseo4@illinois.edu

Jessamyn Perlus  
perlus2@illinois.edu

Find our resources at:

PowerPoint:  
go.illinois.edu/NCDA2016-ManageDataPresentation

Participation Data Template:  
go.illinois.edu/NCDA2016-DataDashboard

Quotes Management Spreadsheet Template:  
go.illinois.edu/NCDA2016-QuotesSpreadsheet

Join the Assessment and Research in Career Services Listserv by emailing your request to:

arcs-request@lists.illinois.edu