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Instructions for the National Post-School Outcomes Center **RESPONSE CALCULATOR** for Indicator 14

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(WE ENCOURAGE YOU TO PRINT THESE INSTRUCTIONS)

Introduction

These instructions accompany the National Post-School Outcomes Center's *Response Calculator (RC)* to be used for SPP/APR Part B Indicator 14. That indicator is the:

Percent of youth who had IEPs, are no longer in secondary school and who have been competitively employed, enrolled in some type of postsecondary school, or both, within one year of leaving high school (U.S. Department of Education, 2006a).

The audience for these *Instructions* and the *Response Calculator* include state education staff charged with reporting on the post-school outcomes and/or the analyst charged with analyzing post-school data for the state department of education. We also suggest that users read the companion Westat/NPSO paper [Post-School Outcomes: Response Rates and Non-response Bias](#). The interested reader should consult that document to gain a comprehensive perspective on terms, definitions, examples, and interpreting data from a Respondent Group that may differ from the Target Leaver Group.

A critical issue to address as part of a state's post-school data collection relates to how representative the *Respondent Group* (those former students who respond to the survey) are in comparison to the *Target Leaver Group* (a representative sample of a population or a census of the total population) of school leavers who had IEPs. Stated differently, how similar – or different – is the Respondent Group, who *did* participate in the survey, from the Target Leaver Group, who *were to have* participated in the survey?

It should come as no surprise that in virtually all surveys only a portion of potential respondents actually respond to the survey. Since the Respondent Group is a subset of the Target Leaver Group (the participants who respond to survey will represent a part of the total Target Leaver Group), the question becomes one of judging the way in which the Respondent Group is similar – or different – from the Target Leaver Group. This issue is critical. If the Respondent Group is, in fact, different from the Target Leaver Group, the responses they give to the survey questions may not reflect the responses of the Target Leaver Group. This is termed “non-response bias” (this reality also is called response bias or selection bias).

The *RC* is a tool designed for states to input key demographic data on the Respondent and Target Leaver Groups. The *RC* compares proportions between the two groups on demographic variables and identifies where important differences exist between the two groups on those variables. This information should be reported as part of the State Performance Plan (SPP) and Annual Performance Report (APR) for Part B Indicator 14. The results have relevance for the way in which a state writes the report summarizing and interpreting the results of the post-school data collection.

Overview of the Response Calculator

The *RC* was written in Excel so as to be compatible with virtually all computer systems and to facilitate the relatively easy transfer of post-school data compiled by a state from their respective systems. Data can be easily entered manually or a transfer can be done by exporting relevant data from a state's current systems to an Excel spreadsheet and copying rows and pasting them into the *RC*. If you choose this method, just make sure your export has the same columns in the same order that they are in on the calculator and when you paste, you'll want to use the right-click "paste values" option to avoid pasting-formatting issues in Excel. Lastly, it is conceivable anyone familiar enough with Excel could easily examine the formulas doing the work inside the *RC* and implement them directly in their own system.

The *RC* includes demographic variables identified by the Office of Special Education Programs (OSEP) in the SPP/APR Instruction Sheet (U.S. Department of Education, 2006b). These demographic variables should be available for all special education students from a state's 618 data. The variables are:

- Specific Learning Disability (LD)
- Emotional Disability (ED)
- Mental Retardation (MR)
- All Other disability groups (AO) (Because of the low incidence of all other special education disability groups except for LD, ED, and MR, it is necessary to aggregate these groups into one composite group)
- Total number of School Leavers in a particular year
- Gender – only Females are identified in the *RC* since gender is dichotomous (i.e., Male v. Female)
- Limited English Proficiency (LEP)
- Dropouts
- Minority

We conducted pilot-testing of the *RC* with three states, working directly with each state's staff person responsible for managing the post-school databases. In each case, we found it took about 2 to 3 hours to secure the necessary data from their respective database and enter those data into the *RC*. Accordingly, we believe that this time frame is a reasonable estimate for the work you will need to do to use the *RC* to calculate the similarities and differences of the Respondent Group to the Target Leaver Group in your state.

An interesting issue was identified in the pilot-testing when a large district (a district of more than 50,000 students) is included in a state-wide calculation. Specifically, that district – by virtue of the number of students it includes – skews the calculations and presents an inaccurate "picture" of the Respondent Group for the state at large. To address this issue, we recommend that if you have a large school district, or more than one such district, in your state that the district(s) be treated as a separate entity. That is, if you had two large school districts in your state, you run three separate calculations of representativeness for your state: one on each of the

two large districts and a third calculation on the rest of your state that excludes those two large districts.

Also, although there is no federal requirement for states to compare Respondent and Target Leaver Groups from different regions within a state, there may be compelling reasons for a state to do so. For example, in an effort to increase response rates through regional training, a state may wish to look specifically at the Respondent and Target Leaver Groups in those regions of the state to determine the challenges encountered in data collection by region and tailor the training to those results.

We have included an example in each tab of the *RC* to demonstrate its use. Once you use the *RC* to compare the Respondent and Target Leaver Groups, we encourage you to consult the WESTAT/NPSO paper for guidance on how these results should be interpreted.

Step-by-Step Instructions

1. Open the Ind14ResponseCalculator.xls

NOTE: If you want to perform the calculations multiple times with different data sets, simply make copies of the original Excel file.

2. “Save As” to your server or hard-drive

The Excel file contains four working tabs:

- *Target Leaver Group*
- *Respondent Group*
- *Response by Demographic*
- *Representativeness*

3. *Target Leaver Group Tab*

The Target Leaver Group Tab relates to the total number of school leavers identified to participate in post-school data collection. Starting with cell 7A, enter data by school district. Replace the test data with your school district data. In the example, we identified districts as 1, 2, and 3 – you may choose to enter the actual names of the districts. For each district enter the raw numbers for each demographic variable for the Target Leaver Group. It is critical that the data are paired to the correct district.

4. *Respondent Group Tab*

The Respondent Group tab relates to the total number of school leavers who actually participated in post-school data collection. Starting with cell 7A, enter data by school district. Replace the test data with your school district data. In the example, we identified districts as 1, 2, and 3 – you may choose to enter the actual names of the districts. For each district enter the raw numbers for each of demographic variable for the Respondent Group. It is critical that the data are paired to the correct district.

5. *Response Rate by Demographic Tab*

Once the raw data are entered on the first two tabs for the Target Leaver Group and for the Respondent Group, the RC calculates an overall response rate for each of the demographic variables. In the example on this tab, the RC has calculated a response rate for each of the demographic variables (labeled **Response Rate**). In the example, the overall Response Rate was 62.79%; the response rate for LD participants was 95.45%; etc.

6. *Representativeness Tab*

In this tab, the RC identifies important differences between Respondent and Target Leaver Groups for each demographic variable. As a rule, we have set an “important difference” at + or – 3%. For example, if the proportion of Target Leavers identified as LD was 60% of the Target Leaver Group and 59% of the Respondent Group was LD, the RC would judge the two groups (actually the proportions of LD school leavers in each group) to be reasonably similar on this variable. If, however, the Respondent Group included only 50% LD school leavers, the RC would identify this variable as having an important difference by presenting the percentage difference in **Red** in those cells in the RC.

Note also that a positive difference indicates over-representation between the two groups (e.g., +3%, indicates that the Respondent Group had a 3% higher proportion of respondents on that variable compared to the Target Leaver Group). A negative difference indicates under-representation between the two groups (e.g., - 3%, indicates that the Respondent Group had a 3% lower proportion of respondents on that variable compared to the Target Leaver Group).

7. In your SPP/APR, under “Discussion of Baseline Data,” note your response rate and variables on which there is a difference of + or – 3%. Use caution as you interpret the results where such differences exist. Once again, the reader is encouraged to review the companion Westat/NPSO document [Post-School Outcomes: Response Rates and Non-response Bias](#) for suggestions to interpret data from a Respondent Group that may differ from the Target Leaver Group.
8. In your SPP/APR, under “Improvement Activities,” consider strategies to increase response rate and representativeness over the course of the SPP. See NPSO product [“Collecting Post-School Outcome Data: Strategies for Increasing Response Rates.”](#)

References

Garrison-Mogren, R. (Sept. 2007) [*Post-School Outcomes: Response Rates and Non-response Bias*](#)

Smith, S.C. & Bost, L.W. (Jan. 2007) [*Collecting Post-School Outcomes data: Strategies for Increasing Response Rates*](#)

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