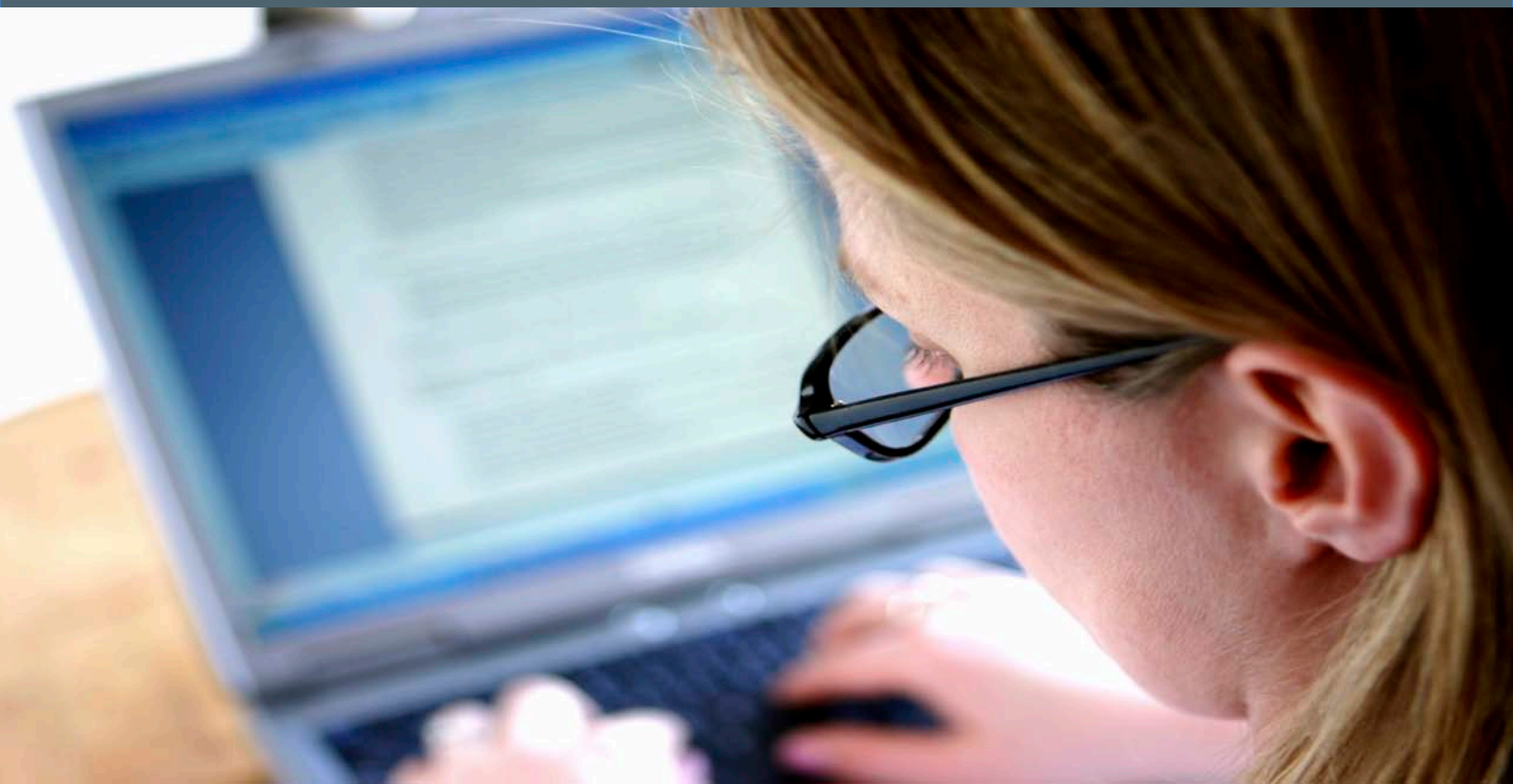


Usage Patterns and Perceptions of the Achievement Reporting and Innovation System (ARIS)



**Thomas Gold
Jessica Lent
Rachel Cole
James Kemple
Lori Nathanson
Janet Brand**

NYUSteinhardt

Steinhardt School of Culture, Education, and Human Development



NEW YORK UNIVERSITY

The **Research Alliance** for
New York City Schools

**Usage Patterns and Perceptions of the Achievement
Reporting and Innovation System (ARIS)**
Technical Appendices

Thomas Gold

Jessica Lent

Rachel Cole

James Kemple

Lori Nathanson

Janet Brand

October, 2012

TABLE OF CONTENTS

APPENDIX A: ADDITIONAL TABLES.....	A-1
Table A1	A-1
Table A2	A-2
Table A3	A-3
Table A4	A-4
APPENDIX B: TECHNICAL DOCUMENTATION	B-1
A Note on the Calculation of Session Time	B-1
Technical Aspects of the Survey.....	B-1
Figure A1	B-3
APPENDIX C: SURVEYS AND INTERVIEW/FOCUS GROUP PROTOCOLS.....	C-1
ARIS Survey for Teachers	C-1
ARIS Survey for Teachers	C-2
ARIS Rationale & Interview Protocols.....	C-6
School Principal/Administrator Interview Protocol	C-7
Data Specialist Interview Protocol.....	C-10
Teacher Focus Group Protocol.....	C-13

APPENDIX A: ADDITIONAL TABLES

Table A1
2010-2011 ARIS Usage
Distribution of Key Measures

Measures	Full School Year
Sessions per user	
100% Max	8,774
99%	194
95%	76
90%	47
75% Q3	19
50% Median	6
25% Q1	2
10%	1
5%	1
1%	1
0% Min	1
Duration (Hours)	
100% Max	81.07
99%	15.13
95%	6.62
90%	4.19
75% Q3	1.75
50% Median	0.53
25% Q1	0.1
10%	0.01
5%	0
1%	0
0% Min	0
Average Hours per session	
100% Max	1
99%	0.4
95%	0.24
90%	0.18
75% Q3	0.12
50% Median	0.07
25% Q1	0.03
10%	0.01
5%	0
1%	0
0% Min	0
Number of Users	69,190

Source: 2010-2011 ARIS (clickstream) records

Notes: Sessions per user reflects the total quantity of ARIS usage per user. Duration includes total combined time of usage per user in hours. Average hours per session reflect total session per user divided by total duration per user.

**Table A2
2010-2011 ARIS Usage
System Areas (Duration) By Month**

System Areas and Measures	Full School Year	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
ARIS Data Areas													
Individual Student Profiles													
Total hours	29,700	519	976	3,448	3,716	3,205	2,193	2,745	2,301	3,351	1,832	2,428	2,986
Minutes per user	25.8	3.1	4.0	6.9	7.7	6.4	5.3	6.2	5.6	7.1	5.5	6.7	7.9
Views													
Total hours	38,315	815	2,852	6,988	5,559	4,494	2,682	3,369	2,770	2,936	1,592	1,913	2,346
Minutes per user	33.2	4.9	11.7	14.0	11.6	9.0	6.5	7.6	6.7	6.3	4.8	5.3	6.2
Data Reports													
Total hours	5,891	185	400	670	937	761	454	538	402	597	333	348	266
Minutes per user	5.1	1.1	1.6	1.3	1.9	1.5	1.1	1.2	1.0	1.3	1.0	1.0	0.7
System Navigation													
Total hours	16,277	318	453	1,386	1,623	2,111	2,593	2,467	1,100	1,539	796	948	944
Minutes per user	14.1	1.9	1.9	2.8	3.4	4.2	6.3	5.6	2.7	3.3	2.4	2.6	2.5
All ARIS Data Areas													
Total hours	90,184	1,837	4,681	12,493	11,835	10,571	7,922	9,119	6,572	8,423	4,552	5,636	6,543
Minutes per user	78.2	11.1	19.1	25.0	24.6	21.1	19.2	20.6	16.0	18.0	13.6	15.6	17.3
ARIS Connect Areas													
Total hours	21,326	593	543	1,572	2,706	3,522	2,509	1,923	1,733	2,312	1,160	1,409	1,342
Minutes per user	18.5	3.6	2.2	3.1	5.6	7.0	6.1	4.3	4.2	4.9	3.5	3.9	3.5
Number of Users	69,190	9,934	14,685	30,040	28,851	29,993	24,757	26,623	24,627	28,120	20,040	21,633	22,736

Source: 2010-2011 ARIS (clickstream) records. Notes: ARIS Data areas include data and reports from the My Students and Reports tab in ARIS. System navigation refers to the time spent logging on, searching and other user actions.

Table A3
Use of ARIS Components by Job Category and Access Level, 2010-2011

System Areas and Measures	All Users	School-Wide Access			Classroom Access		Aggregate Access
		Administration	Teachers	Others	Teacher	Others	All
ARIS Data Areas							
Individual Student Profiles							
Total hours	29,700	3,017	11,730	3,979	10,825	119	32
Minutes per user	25.8	43.3	40.6	41.6	18.5	5.2	0.4
Views							
Total hours	38,315	5,178	17,540	2,999	12,400	134	63
Minutes per user	33.2	74.4	60.7	31.3	21.2	5.8	0.7
Data Reports							
Total hours	5,891	1,358	2,447	307	1,647	34	99
Minutes per user	5.1	19.5	8.5	3.2	2.8	1.5	1.1
System Navigation							
Total hours	16,277	2,147	6,488	1,506	5,815	84	237
Minutes per user	14.1	30.8	22.4	15.7	9.9	3.7	2.6
All ARIS Data Areas							
Total hours	90,184	11,701	38,204	8,790	30,687	371	430
Minutes per user	78.2	168.1	132.2	91.8	52.5	16.1	4.7
ARIS Connect Areas							
Total hours	21326	3147	8640	878	8159	122	381
Minutes per user	18.5	45.2	29.9	9.2	14.0	5.3	4.2
Total ARIS Usage							
Total hours	111,510	14,847	46,844	9,669	38,846	493	811
Minutes per user	96.7	213.3	162.1	101.0	66.5	21.4	8.9
Total users	69,190	4,177	17,344	5,745	35,074	1,380	5,470

Source: 2010-2011 ARIS (clickstream) records and DOE HR records.

Notes: User Category based on Research Alliance definition. Light is less than 15 minutes of total use per individual for the year, Moderate between 15 and 90 minutes of use, and Heavy more than 90 minutes of use. User role refers to the job the ARIS user occupies within a school or district office; this information is culled from the DOE's HR records. The level of access indicates whether the user has classroom-level only or school-wide access to the data in ARIS. Other school-wide refers to staff providing support, including guidance counselors, social workers, and others with similar roles. All aggregate refers to staff providing support that have access to only data that is summarized to the school-level.

**Table A4
Use of ARIS Components by School Type, 2010-2011**

System Areas and Measures	All Schools	Elementary Schools	Middle Schools	Elementary-Middle Schools	High Schools	Other Grade Configurations	Special Education Schools	Alternative Schools
ARIS Data Areas								
Individual Student Profiles								
Total hours	25,722	5,760	6,875	2,412	8,825	1,669	46	136
Minutes per user	25.7	14.1	36.4	20.5	41.5	36.7	2.1	30.4
Views								
Total hours	34,643	10,912	9,177	4,199	8,141	2,122	32	61
Minutes per user	34.7	26.7	48.6	35.8	38.3	46.6	1.5	13.7
Data Reports								
Total hours	5,309	2,183	1,296	824	735	255	6	10
Minutes per user	5.3	5.3	6.9	7.0	3.5	5.6	0.3	2.2
System Navigation								
Total hours	14,110	5,366	3,075	1,849	3,004	677	81	57
Minutes per user	14.1	13.1	16.3	15.8	14.1	14.9	3.7	12.8
All ARIS Data Areas								
Total hours	79,785	24,222	20,423	9,283	20,704	4,723	166	264
Minutes per user	79.8	59.2	108.1	79.1	97.3	103.8	7.6	59.0
ARIS Connect Areas								
Total hours	18,050	8,620	3,470	2,628	2,560	589	149	35
Minutes per user	18.1	21.1	18.4	22.4	12.0	12.9	6.9	7.9
Number of Users**	59,986	24,545	11,333	7,042	12,768	2,729	1,300	269

Source: 2010-2011 ARIS (clickstream) records and HR data provided by the DOE.

Notes: School Type based on grade configurations. Elementary Schools (grades K-5/6); Middle Schools (grades 6-8); Elementary-Middle Schools (grades K-8); Other grade configurations (grades Pk-2/3, 6-12); Special Education in Schools (D75); Alternative Schools in (D79).

** Total excludes users whose school type could not be identified by either HR or ARIS usage files.

APPENDIX B: TECHNICAL DOCUMENTATION

The following appendix provides additional technical information about the data collected and used in the analysis for this paper. In particular, it explains how session times were calculated in the analysis of clickstream data and gives additional details about the teacher survey, such as the properties of the instrument, how we validated some of the items and how it was administered.

A Note on the Calculation of Session Time

We sorted clickstream records by session and timestamp and the following record's start time as an end point to determine how long a user looked at a particular page. This method worked well for all but the final record in each session because there was no following record by which to determine the full session's end time. To resolve this problem, we determined the mean and median duration of all user records for individuals with similar ARIS roles in the same week. For example, we looked at all the individual users with a user role of School Educator in week 26 who looked at an individual student record—1,565 people in this case—and found that they spent a median time of 18 seconds on an individual student's page. We then matched the median duration of the appropriate week-task-user-type to each record to impute the duration of each session's ending record.

Technical Aspects of the Survey

Survey properties.

The survey consisted of 16 multi-part items, including multiple choice, rating scale, and free response items. The first 10 items addressed at least one of the three constructs (content, support, or time). Item types included yes/no, 4-point Likert-type rating scale, and rank-order. In addition, the survey contained several open-ended items that provided anecdotal evidence about additional ARIS information/tools teachers desired and factors that influence ARIS use. Four items asked about demographic information including subjects taught, years of teaching, data roles, and self-identified "ARIS user type" (non-user, novice, average and expert) that help to describe the sample. In addition, to ensure that the survey items were clear and meaningful to the respondents, we submitted them to an extensive review by current teachers, principals and ARIS program administrators at the central offices of the DOE prior to the survey's administration.

Survey item validity check.

The survey asked respondents to self-identify with an ARIS "user-type," choosing from non-user, novice, average, or expert (Figure 9 in the text). The majority of respondents either selected novice (33 percent) or average (51 percent) user. Eight percent of respondents considered themselves non-users, and another eight percent of respondents considered themselves expert users. A separate but related set of items asked teachers to rate their proficiency with different ARIS tools, specifically, Views, My Students, Reports, and Connect. We determined that these four proficiency items were strongly related to one another

(Cronbach's alpha = .85) and calculated the mean and standard deviation combining all items (where 1= not at all proficient, 4=very proficient, and "not sure" was treated as missing data). The resulting mean score for all respondents was 2.05 ($sd=.81$), where "a little bit proficient" corresponded with "2" on the rating scale. This mean suggests that, on average, respondents considered themselves to be minimally proficient with these ARIS tools.

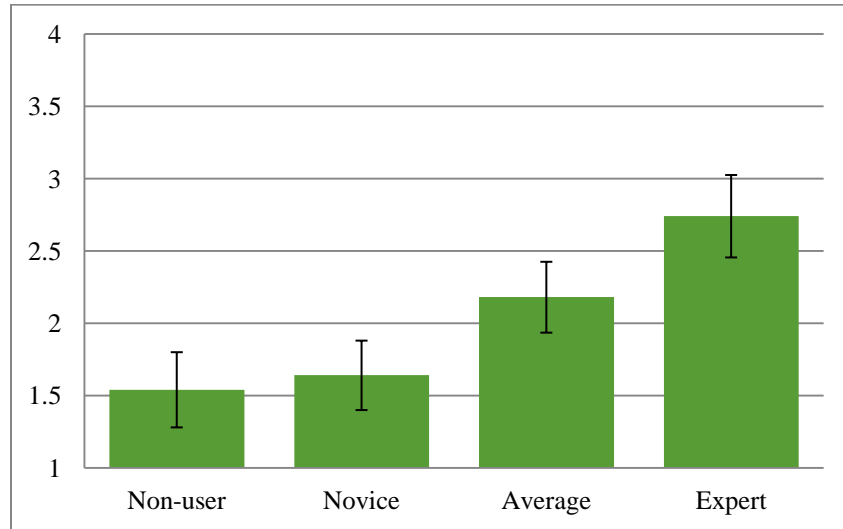
These proficiency scores provide a validity check for the way users self-identified their own capacity to use ARIS. Respondents with higher proficiency scores were more likely to report themselves as an average or expert user. Figure B1 below shows that experts had a higher mean proficiency score of 2.74 (.58) compared to 2.18 (.76) for average users, 1.64 (.76) for novice, and 1.54 (.78) for non-users. Respondents with higher proficiency scores were more likely to identify as an average or expert user. The self-identified ARIS user-types also allow us to compare certain findings by this category.

Survey administration.

Nearly half of the respondents completed the survey during the June 9th citywide Chancellor's professional development day. The survey was administered primarily in person using the paper and pencil version. We also made an electronic version available to one school that preferred this method. For this school, a point person at who worked in the building was provided with a link to the survey to distribute to their teachers and was given a deadline for survey completion. We encouraged this school to administer the survey in the same place at the same time to mirror the process of the paper survey and to ensure a robust response rate.

For the other 22 schools, a member of the Research Alliance staff or trained volunteer visited the school, explained the research project, distributed the surveys, answered any questions, and collected the completed surveys. In a gesture of appreciation for their time, we provided respondents with a snack. The survey administration process took approximately 25 minutes. In a few cases, the researcher would stay at the school for an extended period of time to accommodate additional teachers who could not attend the first survey administration session and thus completed the survey during their lunch period or in between professional development activities.

Figure B1
Proficiency Mean Score by User Perceptions of ARIS Skill Level



Source: Research Alliance survey of middle school teachers, Spring 2011.

APPENDIX C: SURVEYS AND INTERVIEW/FOCUS GROUP PROTOCOLS

ARIS Survey for Teachers

Your experiences are important! The purpose of this survey is to learn about factors that influence ARIS use. In particular, we are interested in how ARIS content, time issues, and the availability of support may encourage teachers to use ARIS more or less. What you and other teachers in your school say can help identify strategies to improve ARIS and ARIS support systems, making it more useful for teachers and other educators.

Your answers are confidential. Your name will not be linked to your answers, and no one in your school or the NYC Department of Education will ever see your individual answers. Your answers will be combined with those of other teachers at your school and other schools to provide a picture of teachers' experience with ARIS.

Your participation is voluntary. You do not have to respond to the survey. You may skip any question you do not wish to answer, but we hope that you will answer as many questions as you can. If more teachers respond, we will have a more accurate picture of teachers' experiences with ARIS.

We know your time is valuable. The time required to complete this survey is estimated to be 20 to 30 minutes. We worked hard to trim our survey down to only the most important questions, and we promise to carefully consider all of your responses and comments.

If you have questions about the study, please contact Thomas Gold at 212-998-5887 or Thomas.Gold@nyu.edu. For questions about your rights as a research participant, you may contact the University Committee on Activities Involving Human Subjects, New York University, 665 Broadway Suite 804, New York, NY, 10012, at askhumansubjects@nyu.edu or 212-998-4808.

The Research Alliance for New York City Schools is a non-partisan research center housed in New York University. The organization was created to help teachers, principals, administrators and policymakers make informed decisions about how to educate the city's children by conducting rigorous studies that provide evidence about the status of public education and effectiveness of school improvement initiatives.

Thank you for your willingness to participate.

ARIS Survey for Teachers

1. What kinds of ARIS training or support have you had since ARIS was launched in 2008?	No	Yes
a. Training led by your network or by ARIS trainer	<input type="radio"/>	<input type="radio"/>
b. In-school professional development session	<input type="radio"/>	<input type="radio"/>
c. Training manual	<input type="radio"/>	<input type="radio"/>
d. ARIS helpdesk via phone	<input type="radio"/>	<input type="radio"/>
e. Someone in my building who can answer questions about ARIS	<input type="radio"/>	<input type="radio"/>
f. Time set aside in meetings to discuss data from ARIS or other sources	<input type="radio"/>	<input type="radio"/>

2. Are the following types of information currently available on ARIS?	No	Yes	Not sure
a. Parent contact information	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Disability classification for students with IEPs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. New York State ELA and math test scores	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. New York State test results by standard and strand	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Acuity predictive scores	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Acuity results for individual test questions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Individual students' responses to the School Survey	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. A place for teachers to find resources and use collaborative tools	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

3. When you need the following types of information, how do you <u>primarily</u> access each one? If you select "Other source," please write the source in the space provided.			
	ARIS	Other source (please specify)	I don't use this information.
a. New York State test scores	<input type="radio"/>	<input type="radio"/> _____	<input type="radio"/>
b. Periodic assessment results (e.g., Acuity, Performance Series)	<input type="radio"/>	<input type="radio"/> _____	<input type="radio"/>
c. Attendance records	<input type="radio"/>	<input type="radio"/> _____	<input type="radio"/>
d. Student biographical information (e.g., contact information, ethnicity, ELL and special education status)	<input type="radio"/>	<input type="radio"/> _____	<input type="radio"/>
e. Student current courses and grades	<input type="radio"/>	<input type="radio"/> _____	<input type="radio"/>

There are a lot of different parts to ARIS, but we are interested in your perceptions of ARIS overall.

4. How much do you disagree or agree with the following statements?

In general, information on ARIS is...	Strongly disagree	Disagree	Agree	Strongly agree	Not sure
a. Timely enough to inform instruction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Detailed enough to inform instruction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Accurate	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Easy to interpret	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Presented in a user-friendly manner	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

5. Rate the usefulness of these ARIS Connect communities. *If you are not familiar with a particular item, select "Not sure."*

	Not at all useful	A little bit useful	Somewhat useful	Very useful	Not sure
a. My school's public community	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Instructionally-focused communities (e.g., focus on 6th grade math, ELLs, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Communities that I or my colleagues created	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. <i>Promising Practices Library</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. <i>Inquiry Spaces</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

6. Rate the usefulness of these ARIS Report tools. *If you are not familiar with a particular item, select "Not sure."*

	Not at all useful	A little bit useful	Somewhat useful	Very useful	Not sure
a. <i>QuickStart Reports</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. <i>Custom Reports</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

7. Rate your proficiency with the following ARIS tools.

	Not at all proficient	A little bit proficient	Somewhat proficient	Very proficient	I don't use this tool.
a. Using <i>Class Lists</i> to get a quick sense of the data about a group of students	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Using <i>My Students</i> to find out more about an individual student's background	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Using <i>Reports</i> to compare the test performance of different groups of students in your class/school	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Using <i>Connect</i> to learn about Inquiry Team work in my school	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

We want to understand more about potential barriers to using ARIS.

8. How much do you disagree or agree with each of the following statements?

	Strongly disagree	Disagree	Agree	Strongly agree	Not applicable
a. I need more training to use ARIS.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. The information in ARIS isn't useful to me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. ARIS is not user-friendly.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. I don't have time to use ARIS.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. I don't have access to a computer when I want to use ARIS.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. I have technology problems that keep me from using ARIS.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. ARIS restricts my access to some of my current students' information.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. I need help using the data from ARIS to improve my instruction.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Imagine you have a few days before school starts to prepare for the new year. How would you prioritize the tasks listed below?

9. Rank the items below from 1 to 5 by typing the number (1, 2, 3, 4, or 5) next to each statement.

1 is your highest priority, 2 is your second highest priority... and 5 is your lowest priority. Use each number once.

#	
___	Set up and decorate my classroom
___	Plan with colleagues
___	Refine my curriculum, unit plans, and/or lesson plans
___	Use ARIS to learn about my new students
___	Use another source of data to learn about my new students

10. Which one of the following changes would make ARIS more useful? Choose only one.

- Add better information about students
- Add better tools and reports to analyze data
- Offer more scheduled time in school to use ARIS
- Offer more and better training opportunities
- Improve access to computers with Internet access at school

11. What additional information, tools, or reports would you like to see on ARIS?

These questions help us to get a sense of who is responding to the survey while maintaining your confidentiality.

12. Which subjects do you teach? Check all that apply.

- English or math
- Science or social studies
- Support for ELLs or students with special education needs
- Other: _____

13. How many years have you been a teacher (in any grade, any subject)?

- 0 to 3 years
- 4 to 8 years
- 9 to 15 years
- More than 15 years

14. What kind of ARIS user are you?

- Non-user – *I don't use ARIS.*
- Novice user – *I have accessed ARIS a few times but not enough to really know how to use it.*
- Average user – *I access ARIS enough to know how to use it myself.*
- Expert user – *I access ARIS enough to help others use it.*

15. Do you have a position related specifically to data?

Are you a...	Yes	No
a. Data specialist?	<input type="checkbox"/>	<input type="checkbox"/>
b. Inquiry team member?	<input type="checkbox"/>	<input type="checkbox"/>
c. Testing coordinator?	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Other position that involves data use: _____		

Did we miss anything?

16. Please use the space below to tell us more about factors that influence your ARIS use.

ARIS Interview and Focus Group Protocols

The goal of the data collection for the ARIS study using interviews of principals, data specialists, and focus groups of teachers is to elicit information about how staff perceive the value of using ARIS to inform their work. In particular, the interview and focus group protocols investigate how school-based educators view the utility of the content on ARIS, the time they have to access the content, and the support they receive to make sense of the information on ARIS. The interviews will seek to gather information about:

1. how the interviewees themselves use ARIS,
2. their perceptions of how other staff in the school engage with ARIS, and
3. the support the school provides users.

The questions for the principals and the data specialists will be similar, though with an eye toward gauging the degree the former, as a building leader, makes data use, and ARIS in particular, a priority for the school. The questions for the data specialists will focus on how the school provides support to ARIS users.

The teacher focus group protocols concentrate on eliciting comments and perceptions from the targeted audience for ARIS, the teachers in the school. These questions will try to get at the reports and functions (the content) in ARIS that teachers find most useful. Also, the questions will address the processes and structures that facilitate/hinder access to and use of ARIS, including the time and organization allocated for ARIS use in the schools and the support teachers are provided internally and externally.

The information gathered with these protocols will be collected in extensive transcripts and summarized in brief memos shortly after the interviews. A tape recording will be made of the interviews and focus groups to ensure that all information has been collected. The transcripts will be analyzed to look for cross cutting themes and patterns, which will become the substance of the interim report and inform the web-log and usage data analysis. The reporting of this information will not seek to make causal claims about ARIS usage in schools and the implementation of structures and policies to use it. However, it will seek to paint a picture of how schools organize themselves around ARIS and the degree to which this process is influenced by their perceptions of the usefulness of the content in ARIS, the time they have to access the system and the supports they receive to utilize the information.

School Principal/Administrator Interview Protocol

Statement to Subjects

The Research Alliance of New York City Schools (RANYCS) at New York University in partnership with the NYC Department of Education is conducting research on the Achievement Reporting and Innovation System (ARIS). The goal of this study is to learn more about how ARIS is used and what conditions allow teachers and administrators to understand, use, and learn from the data to which they have access.

As part of this study, RANYCS researchers will be interviewing principals and other administrators. Interviews will take approximately one hour. In addition, our team will review school-related data, such as student performance data and how long teachers at the school have been teaching.

RANYCS will use the information participants provide for research purposes only. We will keep confidential the identities of those who participate in the research and will not attribute any comments to any specific individuals or schools. Your participation in this study is completely voluntary. You may request at any time that we stop the interview.

Do you have any questions?

Background

So we can learn a little bit more about you:

1. How long have you been a principal at this school?
2. How long have you been a school principal?

Content

Let's now talk about the ways in which you use ARIS.

1. How would you describe yourself: an Expert ARIS user, a Moderate ARIS user, a Low ARIS user, or a non-ARIS user?
 - Why do you consider yourself a high/mod/low user?
 - What other similar data tools do you use?
 - Generally, do you find tools like ARIS (data dashboards, warehouses, etc.) to be helpful in your work?

For non-users: Can you describe why you do not use ARIS?

2. What features of ARIS do you find most helpful?

Probe for:

- **My Students**
 - Could you give an example of how you use this?
- **Connect**
 - How has Connect been useful in your instructional practice?
- **Reports**
 - Which reports, specifically?
 - How do you use these reports?
 - What reports in ARIS do you find least useful?
- **ARIS Learn**
 - Can you describe how and when you would use this tool?
- Can you give one or two examples of how these features inform important school decisions?
 - Do you have any worksheets, schedules or announcements that show how ARIS is being used in your school?

3. If you could introduce different types of data and functions in ARIS, what would be your top three changes?

Time and Support

Let's now turn to the final set of questions, which focus on time and support available to teachers and other staff using ARIS.

1. Is there a formal **time set aside** in your school to use data?
 - Do teachers gather informally to discuss data?
 - Which tools in ARIS are most supportive for collaborative work around data?
2. How are staff **trained** to use ARIS?
 - targeted, in-school professional development on ARIS?
 - ARIS Learn to schedule PD?
 - a data specialist provides ARIS-related support?
3. Where do you turn for any **issues or questions** you might have with ARIS?
 - Is there a person from your network/cluster who you can turn to if you have a question about ARIS?
 - Please describe the quality of the technical support you receive for ARIS.
 - Can you describe how teachers access data on ARIS?
 - Is this access problematic?
 - If so, how have you addressed it?
4. Are there any other factors that influence your school's use of ARIS?
5. Do you have any more general suggestions on how to improve ARIS?

Turn off the tape recorder:

Is there anything else that you want to say with the tape recorder turned off?

Thank you very much for your time.

Follow up questions for focus group:

Data Specialist Interview Protocol

Statement to Subjects

The Research Alliance of New York City Schools (RANYCS) at New York University in partnership with the NYC Department of Education is conducting research on the Achievement Reporting and Innovation System (ARIS). The goal of this study is to learn more about how ARIS is used and what conditions allow teachers and administrators to understand, use, and learn from the data to which they have access.

As part of this study, RANYCS researchers will be interviewing principals and other administrators. Interviews will take approximately one hour. In addition, our team will review school-related data, such as student performance data and how long teachers at the school have been teaching.

RANYCS will use the information participants provide for research purposes only. We will keep confidential the identities of those who participate in the research and will not attribute any comments to any specific individuals or schools. Your participation in this study is completely voluntary. You may request at any time that we stop the interview.

Do you have any questions?

Background

To get started, I'm going to ask you a few basic questions about how you became the data specialist of this school.

1. How long have you been a data specialist at this school?
2. How long have you been a data specialist?
3. What are your main duties as a data specialist?

Content

Now let's turn to some ways you specifically use ARIS.

1. How would you describe yourself: an Expert ARIS user, a Moderate ARIS user, a Low ARIS user, or a non-ARIS user?
 - Why do you consider yourself a high/mod/low user?
 - What other similar data tools do you use?
 - Generally, do you find tools like ARIS (data dashboards, warehouses, etc.) to be helpful in your work?

For non-users: Can you describe why you do not use ARIS?

2. What **features** of ARIS do you find most helpful?

Probe for:

- **My Students**
 - Could you give an example of how you use this?
- **Connect**
 - How has Connect been useful in your instructional practice?
- **Reports**
 - Which reports, specifically?
 - How do you use these reports?
 - What reports in ARIS do you find least useful?
- **ARIS Learn**
 - Can you describe how and when you would use this tool?
- Can you give **one or two examples of how** these features inform important school decisions?
 - Do you have any worksheets, schedules or announcements that show how ARIS is being used in your school?

3. If you could introduce **different types of data and functions** in ARIS, what would be your top three changes?

Time and support

Finally, I would like to touch on how you and others provide support to teachers in ARIS.

1. How are staff trained to use ARIS?
 - targeted, in-school professional development on ARIS?
 - ARIS Learn to schedule PD?
 - How do you support teachers and administrators with ARIS?
2. Where do you turn for any **issues or questions** you might have with ARIS?
 - Is there a person from your network/cluster who you can turn to if you have a question about ARIS?
 - How do monthly network meetings that focus on data help you or your school use ARIS?
 - Please describe the quality of the technical support you receive for ARIS.
3. Are there any other factors that influence your school's use of ARIS?
4. Do you have general suggestions on how to improve ARIS?

Turn off the tape recorder:

Is there anything else that you want to say with the tape recorder turned off?

Thank you very much for your time.

Follow up questions for focus group:

Teacher Focus Group Protocol

Statement to Subjects

The Research Alliance of New York City Schools (RANYCS) at New York University in partnership with the NYC Department of Education is conducting research on the Achievement Reporting and Innovation System (ARIS). The goal of this study is to learn more about how ARIS is used and what conditions allow teachers and administrators to understand, use, and learn from the data to which they have access.

As part of this study, RANYCS researchers will be conducting focus groups with teachers. The focus groups will take approximately one hour. In addition, our team will review school-related data, such as student performance data and how long teachers at the school have been teaching.

RANYCS will use the information participants provide for research purposes only. We will keep confidential the identities of those who participate in the research and will not attribute any comments to any specific individuals or schools. Your participation in this study is completely voluntary. You may request at any time to leave the focus group.

Do you have any questions?

Background

Let's start off with some basic questions about your experience as a teacher in this school.

1. How long have you worked at this school?
2. What grades and subjects do you teach?

Content

Let's now turn to your thoughts about using data as part of your work as an educator and in particular your experience with ARIS.

1. How would you describe yourself as an ARIS user:
 - Expert user, moderate user, low user, non-user?
 - Why do you consider yourself a high/mod/low user?
 - What other similar data tools do you use?
 - Generally, do you find tools like ARIS (data dashboards, warehouses, etc.) to be helpful in your work?

For non-users: Can you describe why you do not use ARIS?

2. **Where** do you usually access ARIS online (e.g., classroom, computer lab, home)?

3. What **features** of ARIS do you find most helpful?

Probe for:

- **My Students** (class lists, individual student profiles)
 - Can you give me an example of how you use My Students?
 - How does this feature inform your teaching?
- **Reports** (*probe for* which specific Reports)
 - How do you use these reports?
 - How would you improve the Reports tool?
- **ARIS Connect** (Blogs, Wikis, lesson plans, etc.)
 - Can you give me an example of how you use Connect?
 - What other on-line tools do you use to collaborate/communicate with teachers?
 - How about communication with parents (Parent Link)?

Additional things to listen for:

- to view student demographic and biographical information?
- to target/organize additional individual instruction for students who are struggling?
- to track student progress over time? (historical data)
 - If so, what aspects of ARIS were most helpful with this inquiry?

- in-school professional development on ARIS?
- The school's SSO, cluster or network?

- DOE Central?
 - What aspects of this training were most useful to you?
 - What aspects were the least useful?
 - If you could have **additional training** on ARIS, what would you like covered?
2. Please give me an **example** of how you would use ARIS to work with another teacher.
 - How often do you get together with teachers informally to discuss data?
 3. How often do you attend **formal**/organized meetings to discuss data?
 - Describe how ARIS informs these discussions.
 4. If you're **having trouble** with something on ARIS, whom do you turn to?
 5. Are there any other factors that influence your use of ARIS?
 6. Do you have any general suggestions on how to improve ARIS?

Turn off the tape recorder:

Is there anything else that you want to say with the tape recorder turned off?

Thank you very much for your time.

Follow up questions for interviews:

**The Research Alliance for
New York City Schools**

285 Mercer Street, 3rd Floor | New York, New York 10003-9502
212 992 7697 | 212 995 4910 fax
research.alliance@nyu.edu | www.steinhardt.nyu.edu/research_alliance

The Research Alliance for
New York City Schools conducts
rigorous studies on topics that
matter to the city's public schools.
We strive to advance equity and
excellence in education by
providing non-partisan evidence
about policies and practices that
promote students' development
and academic success.