THE NATIONAL ASSESSMENT OF EDUCATIONAL PROGRESS

VOLUME II

(Supplemental Questionnaires-Part of System Clearance Submittal OMB# 1850-0790)

BACKGROUND QUESTIONS

FOR THE YEAR 2007 ASSESSMENT (Wave 3)

Geo-coding Survey

<u>School/State Personnel</u> Pilot Geo-coding Users Survey



September 21, 2006

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Wave 3b

Geo-coding Survey

Completed By

School/State Personnel

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student tha	t are based on the appresate census mornhatton. Once this is done, the block group-	
designatior	n will be removed from the data.	

The collection of information in this survey is authorized by Public Law 107-110, 20 U.S.C. §9010. Participation is voluntary. You may skip questions you do not wish to answer; however, we hope that you will answer as many questions as you can. No information collected under this authority may be used for any purpose other than the purpose for which it was supplied. Information will be protected from disclosure by federal statute (42 U.S. Code 242m, Section 308d). No individual data about your students, schools, or profile that links the name, address, telephone number, or identification number with your responses will be reported.





PART I—Training and the User's Guide

1. How helpful were the training and User's Guide for explaining the following steps of the geo-coding process? (Please mark one response under **Training** and one response under **User's Guide** on each line.)

	Training		User's Guide					
	Not at all Helpful	Somewhat Helpful	Helpful	Very Helpful	Not at all Helpful	Somewhat Helpful	Helpful	Very Helpful
a. Creating a comma delimited CSV student address file	0	0	0	0	0	0	0	0
 b. Creating a unique name for your student address file collection 	0	0	0	0	0	0	0	0
c. Importing your address file	0	0	0	0	0	0	0	0
d. Mapping columns	0	0	0	0	0	0	0	0
e. Geo-coding addresses	0	0	0	0	0	0	0	0
f. Editing failed addresses	0	0	0	0	0	0	0	0
g. Viewing demographic statistics	0	0	0	0	0	0	0	0

- 2. For which single part of the geo-coding process do you wish you had more information or training? (Please mark all that apply.)
 - Creating a comma delimited CSV student address file
 - Creating a unique name for your student address file collection
 - Importing your address file
 - Mapping columns
 - Geo-coding addresses
 - Editing failed addresses
 - Viewing demographic statistics

PART II—Creating or Importing Student Address Files

3.	. Which file formats are typically used at your school (or district or state) for storing student-address data? (Please mark one response on each line.)			
		No	Yes	
	a. Comma delimited CSV format	0	0	
	b. Microsoft Excel format	0	0	
	c. Microsoft Access database file	0	0	
	d. Proprietary student database management system files	0	0	

4. How many comma delimited CSV address files did you import into the software?

5. On average, how long did it take you to prepare a comma delimited CSV file that could be used by the software? (Please mark one response.)

- No time at all, a comma delimited file was already available
- Less than 15 minutes
- O 15 to 30 minutes
- O 31 to 45 minutes
- 46 minutes to 1 hour
- More than 1 hour

6. How difficult was it for you to create a comma delimited CSV file? (Please mark one response.)

- Very difficult
- Somewhat difficult
- Not at all difficult

7.	Did the following situations cause you problems when creating a student address file? (Please mark one response on each line.)			
			No	Yes
	a.	Student addresses are stored in multiple databases	0	0
	b.	Knowledge of Excel and creating comma delimited CSV files is limited	0	0
	c.	State information is not included in student-address files	0	0
	d.	Student-address data are not entered uniformly or consistently in database(s)	0	0
	e.	Student-address data are mailing addresses and not physical addresses	0	0
	f.	Other, please specify:	0	0

PART III—Editing Addresses

8.	How many addresses were you assigned to geo-code?

9.	How many addresses did you successfully geo-code?

For questions 10 and 11, if you geo-coded more than one address file, please only report on the file in which you had the greatest difficulty geo-coding.

10. What percentage of addresses was the software able to geo-code the first time? (Please mark one response.)
° 0-20%
° 21-40%
○ 41-60%
○ 61-80%
○ 81-100%

11. After the s	er editing the address information that failed geo-coding, what was the final percentage of addresses system was able to geo-code? (Please mark one response.)
0	0-20%
0	21-40%
0	41-60%
0	61-80%
0	81-100%

For questions 12 and 13, if you geo-coded more than one address file, please base your responses on your experiences geo-coding all of them.

- 12. What were the top three reasons for geo-coding failure? (Please mark three responses.)
 - All address information for a student was missing
 - Street names were misspelled or incomplete
 - Address numbers were incomplete or reversed
 - City names were incomplete or abbreviated
 - State names were incorrectly abbreviated
 - Zip codes were incorrect
 - Only P.O. Box information was available
 - Other, please specify:
 - Don't know

13. Overall, how long did it take you to edit addresses that failed geo-coding? (Please mark one response.)

- No time at all because there were no geo-coding failures
- Less than 15 minutes
- 15 to 30 minutes
- 31 to 45 minutes
- 46 minutes to 1 hour
- More than 1 hour

14. How did you correct addresses that failed geo-coding? (Please mark one response on each line.)			
	No	Yes	
a. Used an address locator on the Internet (e.g., MapQuest, White Pages)	0	0	
b. Contacted the school	0	0	
c. Contacted the district	0	0	
d. Contacted the state	0	0	
e. Contacted student's parent(s)	0	0	
f. Asked the student	0	0	
g. Looked up the original source of student's address (i.e., what parents complete when initially enrolling students in school)	0	0	
h. Did not research the correct address	0	0	
i. Other, please specify:	0	0	

PART IV—Usability of Software and Demographic Profile

15. Please indicate the extent to which you agree or disagree with the following statements about the usability and friendliness of the geo-coding software: (Please mark one response on each line.)					
	Strongly Agree	Agree	Disagree	Strongly Disagree	
a. Both the training and User's Guide are needed to understand how to use the system	0	0	0	0	
b. The training is all that is needed to understand the system	0	0	0	0	
c. The User's Guide is all that is needed to understand how to use the system	0	0	0	0	
d. The instructions for creating the comma delimited CSV file were clear and understandable	0	0	0	0	
e. The comma delimited CSV file was difficult to create	0	0	0	0	
f. The process takes too long to perform	0	0	0	0	
g. The visual layout of the software was intuitive and easy to follow	0	0	0	0	
h. The instructions for how to edit addresses were clear and understandable	0	0	0	0	
i. The system made it easy to edit incorrect addresses	0	0	0	0	
j. The error messages given for why an address failed geo-coding helped to correct the address	0	0	0	0	
k. The system did not initially geo-code enough addresses	0	0	0	0	
l. I can see using the software for purposes other than NAEP	0	0	0	0	
m.I question the accuracy of the data presented in the demographic profile	0	0	0	0	

16. Can your school (or district or state) use the information presented in the demographic profile? (Please mark one response.)

O No

• Yes

17. How do you anticipate using the information in your local demographic profile? (Please provide a short response.)

PART V—Background Information

The following questions will help us interpret your responses.

18. Do you work at the state, district, or school level? (Please mark one response.)

○ State

District

O School

19. How good are you at using, preparing, and manipulating data files? (Please mark one response.)

- Not at all good
- Somewhat good
- \circ Good
- Very good

20. We are interested in knowing who is using the geo-coding software. Could you please tell us your full job title?

Job Title:_____

Thank you very much for your time and valuable responses!

Wave 3c

Geo-coding Software

User's Manual for

School/State Personnel



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I. Introduction

The purpose of this document is to describe in detail how to use Geocoder. Geocoder is a desktop application developed by American Institutes for Research (AIR) that runs on a Microsoft Windows platform, and that offers geo-coding functionality.

Geo-coding is the process of taking a set of student addresses and converting them to Census community identifiers, which contain ZIP code and "census block group" information. This information, when gathered for a group of students, allows a demographic profile of the group to emerge.

It is important to understand that the Census community identifier tells one only about the geographic area in which the student resides and not about the student, the student's family, or the student's residence. Collected for a group of students, the Census community identifier supports the reporting of a rich array of demographic characteristics regarding the communities in which students live, including information about ethnicity, household income, educational attainment levels, and the like.

Geocoder reads an input file containing information about student addresses (i.e. an "Address File"), and produces two types of output files containing the results of the geo-coding process: 1) A demographic statistics export file, and 2) A geo-coding results export file, which is simply the input Address File with additional columns of - the geo-coding results data appended to it.

Geocoder does at no time share with another computer or transmit over the internet to another computer any of the data in the Address File, with the exception of the Zip code information. The collection of ZIP codes in an Address File is shared with an AIR web service in order to retrieve information needed to successfully geo-code the student addresses and produce statistical summaries.

II. Computer and Software Requirements

The computer and software that operates the geocoding application has been provided to you for this feasibility study. The laptop computer is a windows based machine which runs the geocoding program as a stand alone application. Geocoder program reads an input file containing information about student addresses (i.e. an "Address File"), and produces two types of output files containing the results of the geo-coding process: 1) A demographic statistics export file, and 2) A geo-coding results export file, which is simply the input Address File with additional columns of -the geo-coding results data appended to it.

III. Using the Geocoder Software

To run Geocoder:

1. Double-click the Geocoder icon on the desktop, or from the "Start" menu, click on Start>Programs>AIR>Geocoder

IV. The Main Application Window

The figure below shows Geocoder's main application window.

🔛 AIRGeocoder Beta 🕇 0.5.0.0	
Address Collections Geocode Addresses Demographics	
Course Address Collection	
Sample Address Lollection	
New Collection Delete Collection	
Collection Information	
Number of Records 100	
Successfully Parsed: 84	
Successfully Genordert 63	
Invested & datase. The	
C:\Geocoder\Sample1.csv	
Import Address File Map Columns Export Geocode Results	
Ready	
r cauy	.::.

The main application window has three tabs: "Address Collections", "Geocode Addresses", and "Demographics". The "Geocode Addresses" tab appears only when a collection with an imported address file is selected. The "Demographics" tab appears only when a collection that has been geo-coded is selected.

V. Geo-coding Addresses

Geo-coding addresses using Geocoder consists of the following steps:

- 1. Create student address file
- 2. Create a unique name for your student address file collection
- 3. Import your address file
- 4. Map columns
- 5. Geo-code addresses
- 6. View geo-coding results
- 7. Edit failed addresses and retry geo-coding
- 8. View demographic statistics

Each of these steps is described in detail below.

Step 1: Create student address file

The address file must be in a comma-delimited (CSV) format. Many programs (e.g., Microsoft Excel) will allow you to create such a file by using "Save As" or "Export" command, and selecting "Comma delimited (CSV)" format.

The Address File may contain any amount of information about students, but at a minimum must contain the following five pieces of information (each in its own column):

- A unique address record identifier (e.g. Student Id)
- Street Address,
- City,
- State,
- Zip Code

The first row of the file should contain the column headers (i.e., the column names) for each of the columns in the file. Each subsequent row within the file should contain address information for a single student record.

Below is an example of a student address file format:

Student Id.	Street Address	City	State	Zip Code

Step 2: Create a unique name for your student address file collection

The Geocoder program requires that you give an address file you geo-code a unique name. To create a unique name for a given address file:

a. From the "Address Collections" tab, click on the "New Collection" button.

Address Collection Description		×
Collection Description		
Sample1		
	ок	Cancel
		///

- b. Enter a unique descriptive name that helps you distinguish the address file you will import into this collection, and select "OK".
- c. The new collection name appears in the "Collections" list.

AIRGeocoder Beta v 0.5.0.0	
Address Collections Geocode Addresses Demographics	
Collections	
Sample Address Collection	
Samplei	
New Collection Modify Collection Delete Collection	
Collection Information	
Number of Records 100	
Suncasefulli Pareart 94	
Successfully Renordert 63	
Imported Hadrow File.	
Invest Address File Man Columna Europt Generate Possille	
Ready	

Step 3: Import your address file

- a. Select the name of the new address collection (created in Step 2, above) from the "Collections" list.
- b. Click on the "Import Address File" button on the "Address Collections" tab. Choose the name of your address file and click "Open.

Open					<u>? ×</u>
Look jn:	Ceocoder 🔁		• 6	🤣 📂 🖽	,
My Recent Documents Desktop My Documents My Computer	월 Sample1.csv 월 Sample2.csv				
My Network	, File <u>n</u> ame:			•	<u>O</u> pen
Flaces	Files of type:	csv files		•	Cancel

c. Once the file is imported into the selected collection, the application will display a confirmation dialog box.

<u>×</u>
Your file has been successfully imported. Please select the columns in your input file containing address information.
ОК

d. Click "OK" to return to the main application window.

Step 4: Map Columns

a. On the "Address Collections" tab, click on the "Map Columns" button to bring up the "Column Selection" window shown below.

🖶 Column	Selection				_	
Select	the column containing	the street address			<- Previous Next	>
	Student ID	Primary Address	City Name	State Abbr	Zip Code	
► 6	6000	14560 168TH AVE	ACKWORTH	IA	50001	
6	6001	303 11TH ST	ADAIR	IA	50002	
6	6002	705 5TH ST	ADAIR	IA	50002	
6	6003	904 ADAIR ST	ADAIR	IA	50002	
6	6004	600 GUTHRIE ST	ADAIR	IA	50002	
6	6005	1572 180TH ST	ADAIR	IA	50002	
6	6006	1724 287TH ST	ADAIR	IA	50002	
6	6007	2922 DOGWOOD AVE	ADAIR	IA	50002	
6	6008	1685 160TH ST	ALBION	IA	50005	
6	6009	307 E GEORGE ST	ALBION	IA	50005	
6	6010	10729 HIGHWAY \$33	ALDEN	IA	50006	
6	6011	1987 BIRCH RD	ALLERTON	IA	50008	
6	6012	1648 HIGHWAY J46	ALLERTON	IA	50008	
6	6013	512 N CENTRAL AVE	ALLERTON	IA	50008	
	C01.4	000 000TU CT	DICLEY	16	E0000	Ŀ,

- b. Carefully match the columns in your files with the column field highlighted in red at the top of the page. You will be asked to highlight the Street address, City, State, or Zip Code columns.
- c. Use your cursor to highlight the requested field and click the "Next" button.
- d. Highlighting the column indicates which address component has been selected.
- e. Once all columns have been mapped, the "Next" button changes to a "Finish" button. Click on the "Finish" button to return to the main application window.
- f. If you map a column incorrectly click the "Previous" button and highlight the correct column.

Step 5: Geo-code Addresses

a. Click on the "Geocode Addresses" tab, to bring up the address collection detail page shown below.

ess	s Collections	Geocode Addresses						
				O records success O records success	fully parsed fully geocoded			Geocode All
		Address (Primary Address)	City (City Name)	State (State Abbr)	Zip Code (Zip Code)	Status	Geocode Results	Message
	Geocode	14560 168TH AVE	ACKWORTH	IA	50001			
	Geocode	303 11TH ST	ADAIR	IA	50002			
	Geocode	705 5TH ST	ADAIR	IA	50002			
	Geocode	904 ADAIR ST	ADAIR	IA	50002			
	Geocode	600 GUTHRIE ST	ADAIR	IA	50002			
	Geocode	1572 180TH ST	ADAIR	IA	50002			
	Geocode	1724 287TH ST	ADAIR	IA	50002			
	Geocode	2922 DOGWOOD	ADAIR	IA	50002			
	Geocode	1685 160TH ST	ALBION	IA	50005			
	Geocode	307 E GEORGE ST	ALBION	IA	50005			
	Geocode	10729 HIGHWAY	ALDEN	IA	50006			
	Geocode	1987 BIRCH RD	ALLERTON	IA	50008			
	Geocode	1648 HIGHWAY J46	ALLERTON	IA	50008			
	Geocode	512 N CENTRAL A	ALLERTON	IA	50008			
	Geocode	830 320TH ST	BAGLEY	IA	50026			
	Geocode	PO BOX 51	BARNES CITY	IA	50027			
	Geocode	107 CHERRY ST	BARNES CITY	16	50027			

b. To geo-code all addresses, click on the "Geocode All" button. To geocode an individual address record, click on the "Geocode" button to the left of the desired record. The screen below appears.

Ge	eocoding		_□	×
	Addresses Processed		0	
	Addresses Parsed Addresess Geocoded	ГГГ	0	
		Begin Geocoding Cance		
R	eady			:

- c. Click on the "Begin Geocoding" button.
- d. The application reviews each of the addresses in your file, and checks if Census data for all of the ZIP codes in the collection is available on your computer. If so, the application proceeds with geo-coding. If one or more of the ZIP codes in your collection does not have Census data for the information that was load on your computer when you started the Geocoder, the following dialog box will appear.

Retrieving Census Data	
Your Census database does not contain information about some of the regions in the to retrieve it now or click the "Cancel" button to continue geocoding without it.	his address collection. Click the "OK" button
Census Data Received	
	Cancel OK

e. Click "OK" to download the missing Census address data for the additional Zip codes. Upon completion, the following "Cancel" button turns to "Done".

Retrieving Census Data	×
Your Census database does not contain information about some of the regions in this address collection. Click the "OK" button to retrieve it now or click the "Cancel" button to continue geocoding without it.	n
Census Data Received	
Done	
Finished Retrieved 26 of 27	:

f. Click the "Done" button to proceed with geo-coding. The following dialog box comes up to display progress.

G	eocoding		
	Addresses Processed		58
	Addresses Parsed Addresess Geocoded		48 39
		Begin Geocoding Cancel	
P	erforming Geocoding.		.::

During the geo-coding process you will be able to monitor the status of the program. The program first processes ("parses") the text of the address in order to interpret its components (e.g., the street number), and then identifies ("geo-codes") where the address is located. The "% successfully parsed" and "% successfully geocoded" progress bars reflect the geo-coding status.

g. When the geo-coding process is completed the "Cancel" button will turn to "Done". Click on the "Done" button to return to the address collection detail page and view the results.

dres	s Collections	Geocode Addresses Demog	raphics					
			63 record	ds successfu ds successfu	illy parsed illy geocoded			Geocode All
		Address (Primary Address)	City (City Name)	State (State Abbr)	Zip Code (Zip Code)	Status	Geocode Results	Message
	Geocode	14560 168TH AVE	ACKWORTH	IA	50001		19181021100450001	Exact match
	Geocode	303 11TH ST	ADAIR	IA	50002		50002	Geocoding failed
	Geocode	705 5TH ST	ADAIR	IA	50002		19001960100350002	Exact match
	Geocode	904 ADAIR ST	ADAIR	IA	50002		19001960100350002	Exact match
	Geocode	600 GUTHRIE ST	ADAIR	IA	50002		19001960100350002	Exact match
	Geocode	1572 180TH ST	ADAIR	IA	50002		19001960100250002	Exact match
	Geocode	1724 287TH ST	ADAIR	IA	50002		50002	Geocoding failed
	Geocode	2922 DOGWOOD AVE	ADAIR	IA	50002		19077950200250002	Exact match
	Geocode	1685 160TH ST	ALBION	IA	50005		19127950200250005	Exact match
	Geocode	307 E GEORGE ST	ALBION	IA	50005		19127950100250005	Exact match
	Geocode	10729 HIGHWAY \$33	ALDEN	IA	50006		50006	Could not parse address.
	Geocode	1987 BIRCH RD	ALLERTON	IA	50008		50008	Geocoding failed
	Geocode	1648 HIGHWAY J46	ALLERTON	IA	50008		50008	Could not parse address.
	Geocode	512 N CENTRAL AVE	ALLERTON	IA	50008		19185970300150008	Exact match
	Geocode	830 320TH ST	BAGLEY	IA	50026		19073980300150026	Exact match
	Geocode	PO BOX 51	BARNES CITY	IA	50027		50027	Could not parse address.
		Leasourpourer			50007		50007	

Step 6: View geo-coding results

Geo-coding results are displayed in the last three columns of the screen above.

- The "Status" column shows whether the given address was geocoded. If the address was geo-coded a check will appear in the box. If the box is blank the address was not able to assign a Census Community Identifier.
- The "Geocode Results" column shows the Census Community Identifier for the given address, as determined by the application.
- The "Message" column shows one of the following messages regarding the geo-coding effort on the given address.
 - o "Exact match"
 - o "Geocoding failed"
 - o "Could not locate house number"
 - o "Could not locate zip code"
 - o "Could not parse address"

To easily identify all addresses that were not successfully geocoded, select the Status column header to sort by Status. To sort by other fields:

- Click on the desired column heading to sort in ascending order.
- Click same column heading again to reverse sorting order.

Step 7: Edit failed addresses and retry geo-coding

Editing the addresses that failed geo-coding during the initial attempt will require that you verify that each of the failed addresses contains the proper street address, city name, state, and zip code.

In order to edit an address and retry geo-coding:

🔡 AIRG	📰 AIRGeocoder Beta v 0.5.0.0							
Address Collections Geocode Addresses Demographics								
			84 records successfully parsed 63 records successfully geocoded				Geocode All	
		Address (Primary Address)	City (City Name)	State (State Abbr)	Zip Code (Zip Code)	Status	Geocode Results	Message
	Geocode	14560 168TH AVE	ACKWORTH	IA	50001		191810211004500	Exact match
	Geocode	303 11TH ST	ADAIR	IA	50002		50002	Geocoding failed
	Geocode	705 5TH ST	ADAIR	IA	50002		190019601003500	Exact match
	Geocode	904 ADAIR ST	ADAIR	IA	50002		190019601003500	Exact match
	Geocode	600 GUTHRIE ST	ADAIR	IA	50002		190019601003500	Exact match
	Geocode	1572 180TH ST	ADAIR	IA	50002		190019601002500	Exact match
•	Geocode	1724 287TH ST	ADAIR	IA	50002		50002	Geocoding failed
	Geocode	2922 DOGWOOD	ADAIR	IA	50002		190779502002500	Exact match
	Geocode	1685 160TH ST	ALBION	IA	50005		191279502002500	Exact match
	Geocode	307 E GEORGE ST	ALBION	IA	50005		191279501002500	Exact match
	Geocode	10729 HIGHWAY	ALDEN	IA	50006		50006	Could not parse ad
	Geocode	1987 BIRCH RD	ALLERTON	IA	50008		50008	Geocoding failed
	Geocode	1648 HIGHWAY J46	ALLERTON	IA	50008		50008	Could not parse ad
	Geocode	512 N CENTRAL A	ALLERTON	IA	50008		191859703001500	Exact match
	Geocode	830 320TH ST	BAGLEY	IA	50026		190739803001500	Exact match
	Geocode	P0 B0X 51	BARNES CITY	IA	50027		50027	Could not parse ad
	Geocode	107 CHEBBY ST		ы	50027		50027	Geocoding failed
Ready								

a. Click on the address you want to change.

b. Change the data in the field that reflects the correct address information. The change is automatically saved.

- c. Click the "Geocode" button to the left of the address (or the "Geocode All" button if multiple addresses have been modified).
- d. Check the geo-coding results to verify success

Step 8: View demographic statistics

a. Click on the "Demographics" tab. The screen that appears (shown below) displays the demographic profile for the selected address file collection that you geo-coded. Each of your address collections that have been geo-coded will have a demographic profile. (See Appendix A for interpretation of the profile elements).

🔡 AIRGeocoder Beta v 0.5.0.0					
Address Collections Geocode Addresses Demographics					
· · · · · · · · · · · · · · · · · · ·					
	Estimated Student Demographic Profile				
	Approximations base	Export Statistics			
Race/Ethnicity, Percent		Occupational Status, Employed civilian population 16 years			
White	97.2	and over, Percent			
Black or African American	. 4	Management, professional, and related occupations	28.6		
Native American and Alaskan	. 2	Service occupations	16.2		
Asian	. 4	Sales and office occupations	23.3		
Hawaiian and Pacific Islander	.0	Farming, fishing, and forestry occupations	1.3		
Some other race	.0	Construction, extraction and maintenance occupations	10.7		
Two or more races	.6	Production, transportation, and material moving occupations	19.9		
Hispanic or Latino, Percent	1.3				
Speak a language other than English at home		Median household Income, Dollars	40,313		
Population 5 and over. Percent	4 4				
		Poverty Status in 1999, Families with related children 18 years, Percent			
Educational Attainment, Population 25+, Percent		Percent below poverty level	8.4		
No High School Degree	14.7				
High school graduate	62.0	Occupied Housing, Percent			
Two-Year College Degree	7.2	Owner Occupied	81.3		
Four-Year College Degree	11.6	Renter Occupied	18.7		
Graduate Degree	4.4	Median Value, Owner Occupied Housing, Dollars	71,700		
Employment Status, Population 16 years and over, civilian labor force, percent		Median Gross Rent, Dollars	418		
Employed	96.4	Median Tenure in Residence, Years	9.4		
Unemployed	3.6				

Ready

VI. Exporting Results

Geocoder provides the following export capabilities. In both cases, the end result is a comma-delimited (CSV) file containing the respective output.

- 1. Export geo-coding results
- 2. Export demographic statistics

1. To export geo-coding results

a. Select desired address collection from the "Address Collections" tab.

🔜 AIRGeocoder Beta 🛛 0.5.0.0	
Address Collections Geocode Addresses Demographics	
Collections	
Sample Address Collection	
Sample1	
New Collection Delete Collection	
Number of Records 100	
Successfully Parsed: 84	
Successfully Geocoded: 63	
Imported Address File:	
Import Address File Map Columns Export Geocode Results	
Dash	,
incauy	.::

b. Click on the "Export Geocode Results" button. The application brings up a "Save As" dialog box.

Save As							<u>? ×</u>
Save in:	Ceocoder 🔁			•	G 🖻 🖻	•	
My Recent Documents Desktop My Documents My Computer	월 Sample1.csv 월 Sample2.csv						
My Network Places	File name:	Sample1_R	esults		•		Save
	Save as type:	csv files			•		Cancel

c. Enter desired file name and location and click "Save". The application saves the geo-coding results in the specified file name and location.

2. To export demographic statistics

- a. Select desired address collection from the "Address Collections" tab.
- b. Click on the "Demographics" tab to bring up the screen below.

🔛 AIRGeocoder Beta v 0.5.0.0					
Address Collections Geocode Addresses Demographics					
· · ·					
	Estimated Student Demographic Profile				
	Approximations ba	ised on Census 2000 block group information			
	Based on 63	successfully geocoded addresses of 84 processed			
Race/Ethnicity, Percent		Occupational Status, Employed civilian population 16 years			
White	97.2	and over, Percent			
Black or African American	. 4	Management, professional, and related occupations	28.6		
Native American and Alaskan	. 2	Service occupations	16.2		
Asian	. 4	Sales and office occupations	23.3		
Hawaiian and Pacific Islander	.0	Farming, fishing, and forestry occupations	1.3		
Some other race	.0	Construction, extraction and maintenance occupations	10.7		
Two or more races	.6	Production, transportation, and material moving occupations	19.9		
Hispanic or Latino, Percent	1.3				
Speak a language other than English at home,		Median household Income, Dollars	40,313		
Population 5 and over, Percent	4.4	Powerty Status in 1999, Eamilies with related children 19 years. Person			
Educational Attainment, Perculation 251, Percent		Percent below poverty level	" 84		
No High School Degree	14.7	1 ercent below poverty level	0.4		
High school graduate	14.7 62.0	Occupied Housing, Percent			
Two-Year College Degree	7 2	Dwner Occupied	81.3		
Four-Year College Degree	11.6	Benter Occupied	18.7		
Graduate Degree	4 4				
		Median Value, Owner Occupied Housing, Dollars	71,700		
Employment Status, Population 16 years and over, civilian labor force, percent		Median Gross Rent, Dollars	418		
Employed	96.4	Median Tenure in Residence, Years	9.4		
Unemployed	3.6				
Ready					

c. Click on the "Export Statistics" button. The application brings up a "Save As" dialog box.



- d. Enter desired file name and location and click "Save".
- e. The application saves the demographics statistics in the specified file name and location.

VII. Getting Help

If you have any questions about the operation of the software, please call the toll free Geocoding support desk at 1-866-770-6077 or send email to geocodesupport@air.org. You can also contact Steve Davis at 919-606-6880.

Appendix A. Description of US Census Bureau Demographic Statistics

Race/Ethnicity

An approximation of the ethnic/racial composition of the communities in which students live. The demographic statistics presented for race are created using data from the whole population within the communities your students are from. As such, the data presented should be interpreted as a measure of the racial composition of the community, rather than the racial makeup of students in your database. All people who indicated when filling out the Census that they were ethnically Hispanic or Latino, regardless of their race, are included in the "Hispanic or Latino" category.

Language Other Than English Spoken at Home

This statistic is an approximation of the percentage of the population aged 5 to 17 in the neighborhoods your students live in that speak a language other than English at home.

Educational Attainment

These statistics provide approximations of the degrees of educational attainment for members of your students' communities aged 25 and over. The "No High School Degree" category includes all people who indicated when they filled out the 2000 Census that that they did not attain a high school degree or equivalent. The "High School Degree" category includes people in the communities who indicated that they achieved a high school degree or its equivalent, and those that indicated that they had some college but no degree. The "Two-Year College Degree" and "Four-Year College Degree" categories include people who received Associates Degrees and Bachelor degrees, respectively. The "Graduate Degree" category encompasses those people with Master's degrees, professional degrees, and doctorates.

Employment Status

Statistics on employment status are approximations of labor force participation rates among members of the civilian labor force aged 16 and over within the communities your students are from. The category "unemployed" does not include those people in the communities who are completely out of the labor force and not looking for a job. The category "employed" does not include members of the community who are in the Armed Forces.

Occupational Status

The occupational status information is an approximation of the percentages of people in the communities who work in certain broad categories of occupations. All civilian occupations fall into one of these six categories. Due to the large number of possible occupations, the percentages of people in the community in specific occupations are not presented. Only information on people who are aged 16 and older, and are in the civilian labor force is presented.

Household Income

The description of household income presents an approximation of the median 1999 household income for households in your students' neighborhoods. A household consists of all the people who occupy a housing unit. As described by the Census: A household includes the related family members and all the unrelated people, if any, such as lodgers, foster children, wards, or employees who share the housing unit. A person living alone in a housing unit, or a group of unrelated people sharing a housing unit such as partners or roomers, is also counted as a household. The count of households excludes group quarters.¹

Poverty Status in 1999

This statistic provides an approximation of the poverty rates in 1999 for the communities in which your students live. The Census Bureau determines who is in poverty using a set of income thresholds that vary by family size and composition.² The calculation is based on total family income. If total family income for a family of a specific size is less than the threshold determined for a family of that size, the family is in poverty. For individuals that do not live with family members, their own income is compared with the appropriate threshold. The geocoding software does not present details about the poverty status of students in you database, rather the percent generated provides information about the poverty rates in the students' communities.

¹ U.S. Census Bureau (2005). *Decennial Management Division Glossary*. Retrieved on April 1, 2006 from http://www.census.gov/dmd/www/glossary.html#

² U.S. Census Bureau. (2005) *How the Census Bureau Measures Poverty (Official Measure)*. Retrieved on April 1, 2006 from http://www.census.gov/hhes/www/poverty/povdef.html

Occupied Housing

These statistics provide approximations of home ownership and rental rates for the communities in which your students live. An occupied housing unit is described by the Census Bureaus as: a housing unit that is the usual place of residence of the person or people living in it at the time of enumeration, even if the occupants are only temporarily absent; for example, away on vacation. Occupied rooms or suites of rooms in hotels, motels, and similar places are classified as housing units only when occupied by permanent residents; that is, individuals for whom the facility is their usual place of residence.³ Vacant housing units are not included in this measure.

Value, Owner Occupied Housing

These statistics provide approximations to the median dollar value in the year 2000 of houses in your students' neighborhoods that are primary residences. The data here are based on what the respondents reported as the value of their property if they were to sell it.

Gross Rent

Gross rent approximates the median amount of cash rent that was paid by all rent-payers in the communities where your students live. The values are based on year 2000 dollars and have not been adjusted for inflation. The amounts include any money that is included in the rent for food or utilities. Only housing units where the occupants indicated that they were paying cash rent are included in this calculation.

Tenure in Residence

This statistic approximates the median length of time that members of your students' neighborhoods had lived in their homes at the time of the 2000 Census. It is calculated as the difference between the median year that the respondents indicated on the Census that they moved into their homes and the year 2000, when the Census data was collected. Higher values reflect less turnover in residences; lower values reflect more turnover.

³ U.S. Census Bureau (2005). *Decennial Management Division Glossary*. Retrieved on April 1, 2006 from http://www.census.gov/dmd/www/glossary.html#