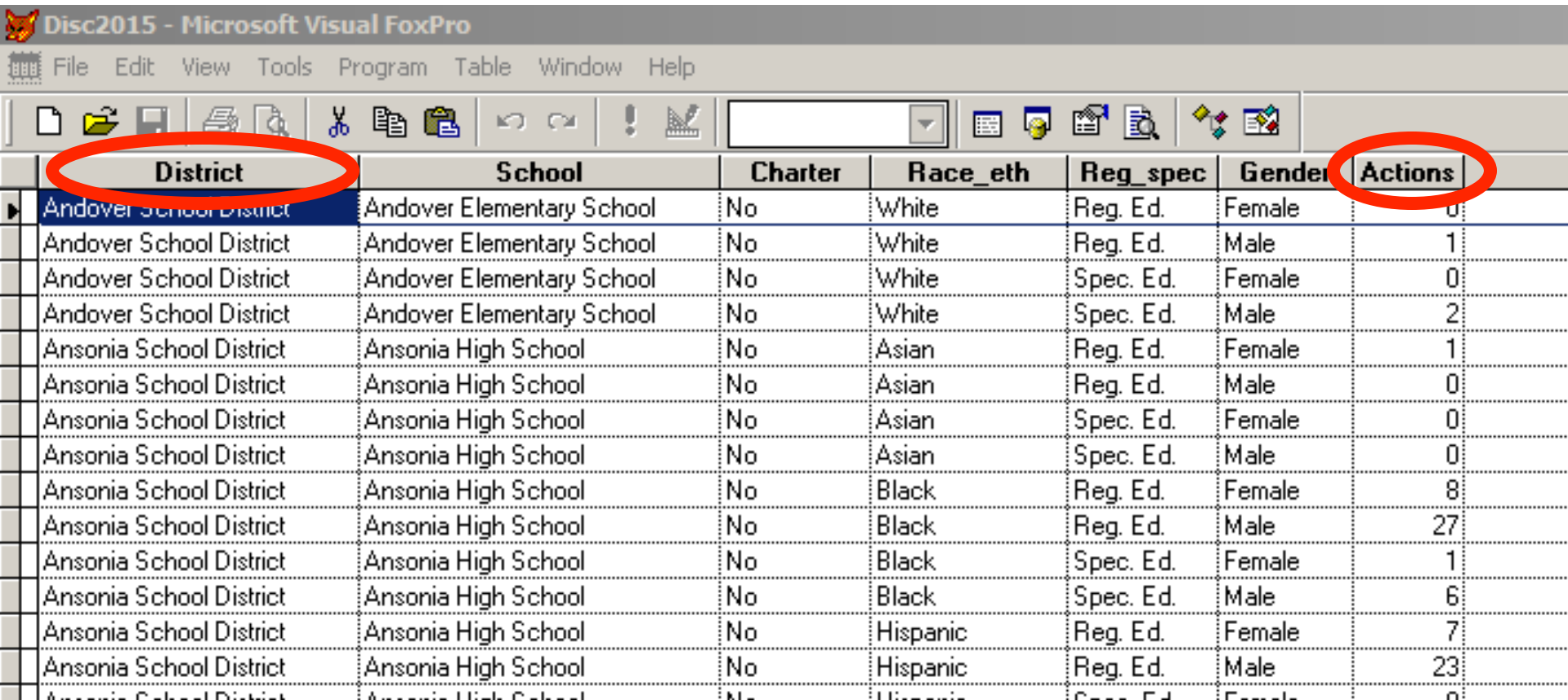




	District	School	Charter	Race_eth	Reg_spec	Gender	Actions
	Andover School District	Andover Elementary School	No	White	Reg. Ed.	Female	0
	Andover School District	Andover Elementary School	No	White	Reg. Ed.	Male	1
	Andover School District	Andover Elementary School	No	White	Spec. Ed.	Female	0
	Andover School District	Andover Elementary School	No	White	Spec. Ed.	Male	2
	Ansonia School District	Ansonia High School	No	Asian	Reg. Ed.	Female	1
	Ansonia School District	Ansonia High School	No	Asian	Reg. Ed.	Male	0
	Ansonia School District	Ansonia High School	No	Asian	Spec. Ed.	Female	0
	Ansonia School District	Ansonia High School	No	Asian	Spec. Ed.	Male	0
	Ansonia School District	Ansonia High School	No	Black	Reg. Ed.	Female	8
	Ansonia School District	Ansonia High School	No	Black	Reg. Ed.	Male	27
	Ansonia School District	Ansonia High School	No	Black	Spec. Ed.	Female	1
	Ansonia School District	Ansonia High School	No	Black	Spec. Ed.	Male	6
	Ansonia School District	Ansonia High School	No	Hispanic	Reg. Ed.	Female	7
	Ansonia School District	Ansonia High School	No	Hispanic	Reg. Ed.	Male	23
	Ansonia School District	Ansonia High School	No	Hispanic	Spec. Ed.	Female	0
	Ansonia School District	Ansonia High School	No	Hispanic	Spec. Ed.	Male	3
	Ansonia School District	Ansonia High School	No	White	Reg. Ed.	Female	13
	Ansonia School District	Ansonia High School	No	White	Reg. Ed.	Male	12
	Ansonia School District	Ansonia High School	No	White	Spec. Ed.	Female	2
	Ansonia School District	Ansonia High School	No	White	Spec. Ed.	Male	6
	Ansonia School District	Ansonia Middle School	No	Asian	Reg. Ed.	Female	0
	Ansonia School District	Ansonia Middle School	No	Asian	Reg. Ed.	Male	1
	Ansonia School District	Ansonia Middle School	No	Asian	Spec. Ed.	Female	0
	Ansonia School District	Ansonia Middle School	No	Asian	Spec. Ed.	Male	0
	Ansonia School District	Ansonia Middle School	No	Black	Reg. Ed.	Female	12
	Ansonia School District	Ansonia Middle School	No	Black	Reg. Ed.	Male	11
	Ansonia School District	Ansonia Middle School	No	Black	Spec. Ed.	Female	3
	Ansonia School District	Ansonia Middle School	No	Black	Spec. Ed.	Male	3

# SELECT means “Show me these columns...”

SELECT District, Actions



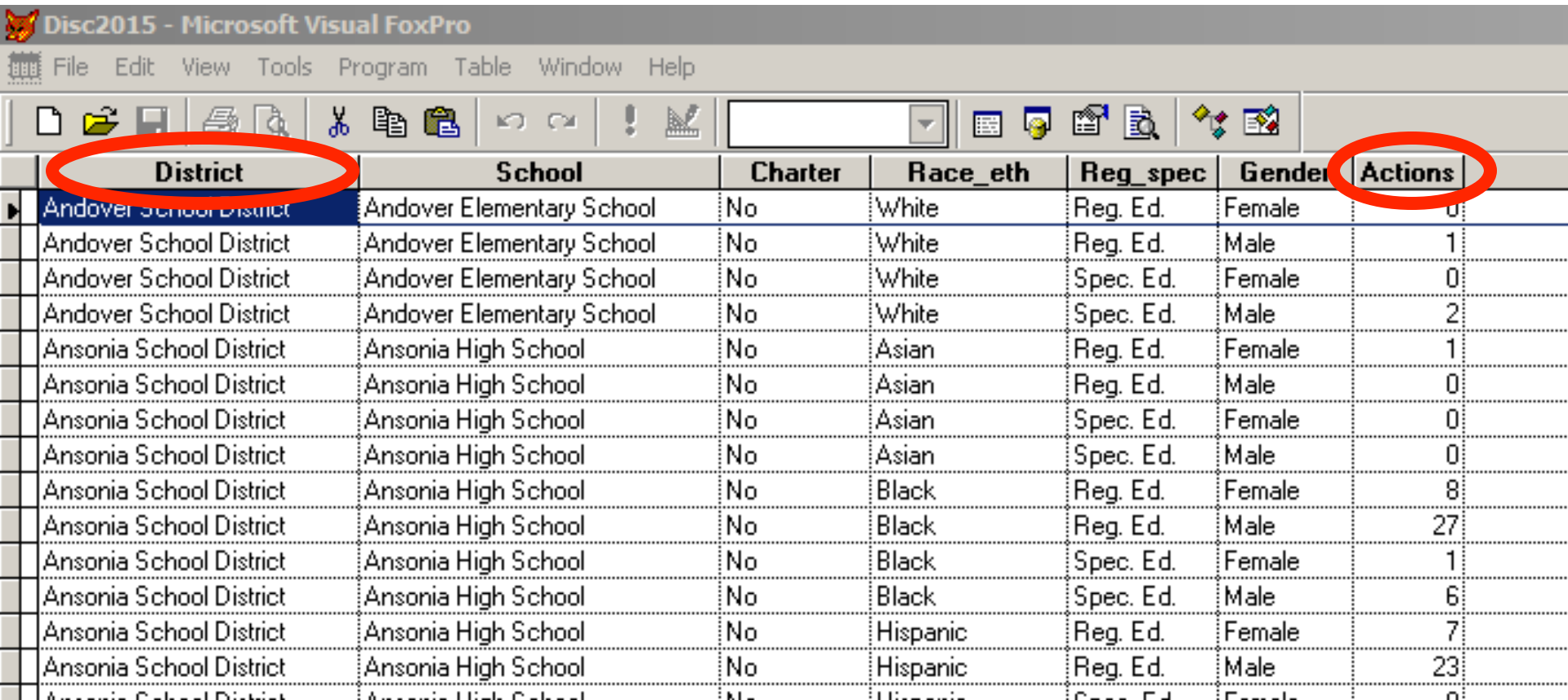
Disc2015 - Microsoft Visual FoxPro

File Edit View Tools Program Table Window Help

District	School	Charter	Race_eth	Reg_spec	Gender	Actions
Andover School District	Andover Elementary School	No	White	Reg. Ed.	Female	0
Andover School District	Andover Elementary School	No	White	Reg. Ed.	Male	1
Andover School District	Andover Elementary School	No	White	Spec. Ed.	Female	0
Andover School District	Andover Elementary School	No	White	Spec. Ed.	Male	2
Ansonia School District	Ansonia High School	No	Asian	Reg. Ed.	Female	1
Ansonia School District	Ansonia High School	No	Asian	Reg. Ed.	Male	0
Ansonia School District	Ansonia High School	No	Asian	Spec. Ed.	Female	0
Ansonia School District	Ansonia High School	No	Asian	Spec. Ed.	Male	0
Ansonia School District	Ansonia High School	No	Black	Reg. Ed.	Female	8
Ansonia School District	Ansonia High School	No	Black	Reg. Ed.	Male	27
Ansonia School District	Ansonia High School	No	Black	Spec. Ed.	Female	1
Ansonia School District	Ansonia High School	No	Black	Spec. Ed.	Male	6
Ansonia School District	Ansonia High School	No	Hispanic	Reg. Ed.	Female	7
Ansonia School District	Ansonia High School	No	Hispanic	Reg. Ed.	Male	23
Ansonia School District	Ansonia High School	No	Hispanic	Spec. Ed.	Female	0

# SELECT means “Show me these columns...”

SELECT District, SUM(Actions)



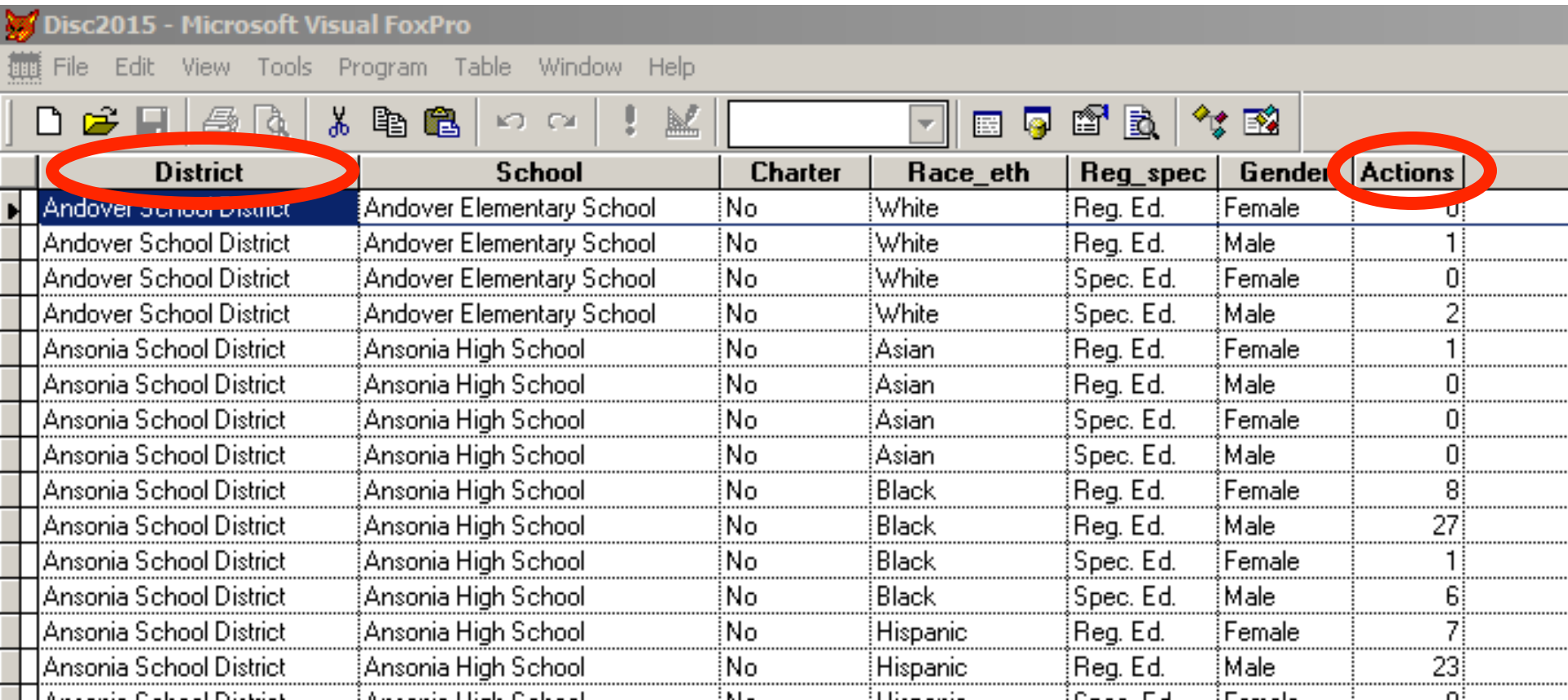
Disc2015 - Microsoft Visual FoxPro

File Edit View Tools Program Table Window Help

District	School	Charter	Race_eth	Reg_spec	Gender	Actions
Andover School District	Andover Elementary School	No	White	Reg. Ed.	Female	0
Andover School District	Andover Elementary School	No	White	Reg. Ed.	Male	1
Andover School District	Andover Elementary School	No	White	Spec. Ed.	Female	0
Andover School District	Andover Elementary School	No	White	Spec. Ed.	Male	2
Ansonia School District	Ansonia High School	No	Asian	Reg. Ed.	Female	1
Ansonia School District	Ansonia High School	No	Asian	Reg. Ed.	Male	0
Ansonia School District	Ansonia High School	No	Asian	Spec. Ed.	Female	0
Ansonia School District	Ansonia High School	No	Asian	Spec. Ed.	Male	0
Ansonia School District	Ansonia High School	No	Black	Reg. Ed.	Female	8
Ansonia School District	Ansonia High School	No	Black	Reg. Ed.	Male	27
Ansonia School District	Ansonia High School	No	Black	Spec. Ed.	Female	1
Ansonia School District	Ansonia High School	No	Black	Spec. Ed.	Male	6
Ansonia School District	Ansonia High School	No	Hispanic	Reg. Ed.	Female	7
Ansonia School District	Ansonia High School	No	Hispanic	Reg. Ed.	Male	23
Ansonia School District	Ansonia High School	No	Hispanic	Spec. Ed.	Female	0

# SELECT means “Show me these columns...”

SELECT District, SUM(Actions) AS Totals



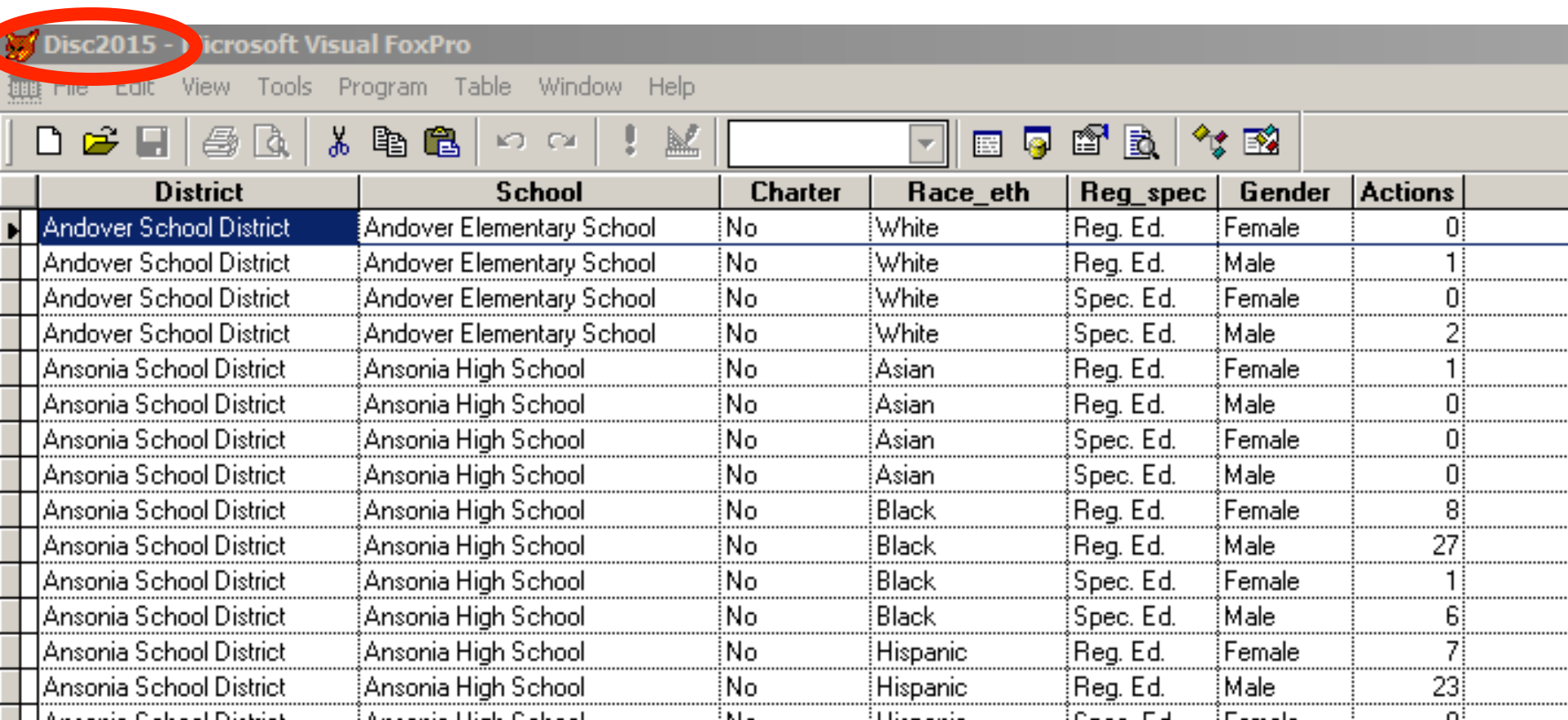
The screenshot shows the Microsoft Visual FoxPro interface with a data table. The table has the following columns: District, School, Charter, Race\_eth, Reg\_spec, Gender, and Actions. The 'District' and 'Actions' columns are circled in red. The data rows show various school districts and their corresponding actions.

District	School	Charter	Race_eth	Reg_spec	Gender	Actions
Andover School District	Andover Elementary School	No	White	Reg. Ed.	Female	0
Andover School District	Andover Elementary School	No	White	Reg. Ed.	Male	1
Andover School District	Andover Elementary School	No	White	Spec. Ed.	Female	0
Andover School District	Andover Elementary School	No	White	Spec. Ed.	Male	2
Ansonia School District	Ansonia High School	No	Asian	Reg. Ed.	Female	1
Ansonia School District	Ansonia High School	No	Asian	Reg. Ed.	Male	0
Ansonia School District	Ansonia High School	No	Asian	Spec. Ed.	Female	0
Ansonia School District	Ansonia High School	No	Asian	Spec. Ed.	Male	0
Ansonia School District	Ansonia High School	No	Black	Reg. Ed.	Female	8
Ansonia School District	Ansonia High School	No	Black	Reg. Ed.	Male	27
Ansonia School District	Ansonia High School	No	Black	Spec. Ed.	Female	1
Ansonia School District	Ansonia High School	No	Black	Spec. Ed.	Male	6
Ansonia School District	Ansonia High School	No	Hispanic	Reg. Ed.	Female	7
Ansonia School District	Ansonia High School	No	Hispanic	Reg. Ed.	Male	23
Ansonia School District	Ansonia High School	No	Hispanic	Spec. Ed.	Female	0

# FROM identifies the table

SELECT District, SUM(Actions) AS Totals

FROM Disc2015



The screenshot shows the Microsoft Visual FoxPro interface. The title bar reads "Disc2015 - Microsoft Visual FoxPro". The menu bar includes File, Edit, View, Tools, Program, Table, Window, and Help. The toolbar contains various icons for file operations and editing. The main window displays a table with the following data:

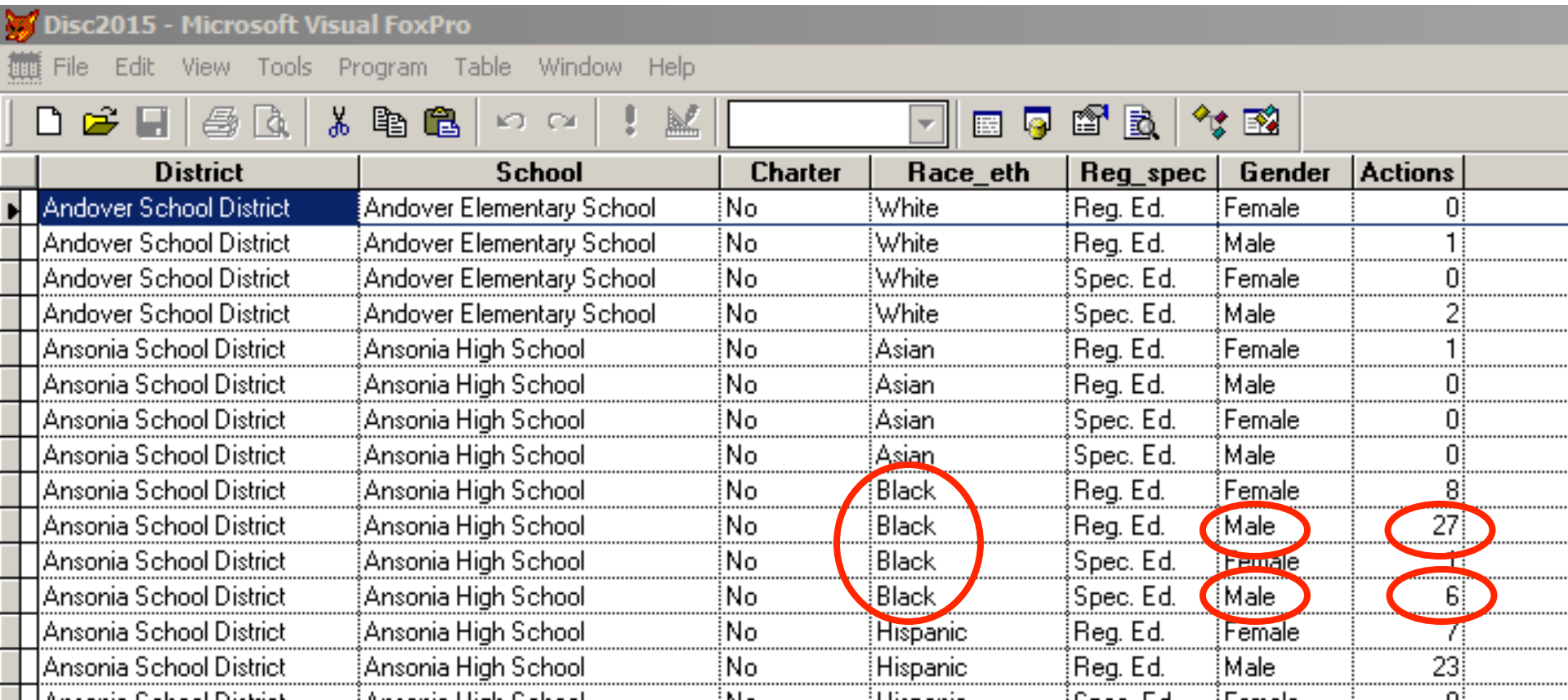
District	School	Charter	Race_eth	Reg_spec	Gender	Actions
Andover School District	Andover Elementary School	No	White	Reg. Ed.	Female	0
Andover School District	Andover Elementary School	No	White	Reg. Ed.	Male	1
Andover School District	Andover Elementary School	No	White	Spec. Ed.	Female	0
Andover School District	Andover Elementary School	No	White	Spec. Ed.	Male	2
Ansonia School District	Ansonia High School	No	Asian	Reg. Ed.	Female	1
Ansonia School District	Ansonia High School	No	Asian	Reg. Ed.	Male	0
Ansonia School District	Ansonia High School	No	Asian	Spec. Ed.	Female	0
Ansonia School District	Ansonia High School	No	Asian	Spec. Ed.	Male	0
Ansonia School District	Ansonia High School	No	Black	Reg. Ed.	Female	8
Ansonia School District	Ansonia High School	No	Black	Reg. Ed.	Male	27
Ansonia School District	Ansonia High School	No	Black	Spec. Ed.	Female	1
Ansonia School District	Ansonia High School	No	Black	Spec. Ed.	Male	6
Ansonia School District	Ansonia High School	No	Hispanic	Reg. Ed.	Female	7
Ansonia School District	Ansonia High School	No	Hispanic	Reg. Ed.	Male	23
Ansonia School District	Ansonia High School	No	Hispanic	Spec. Ed.	Female	0

# WHERE is a filter. Think: “But *only* where...”

SELECT District, SUM(Actions) AS Totals

FROM Disc2015

WHERE Race\_eth = “Black” and Gender = “Male”



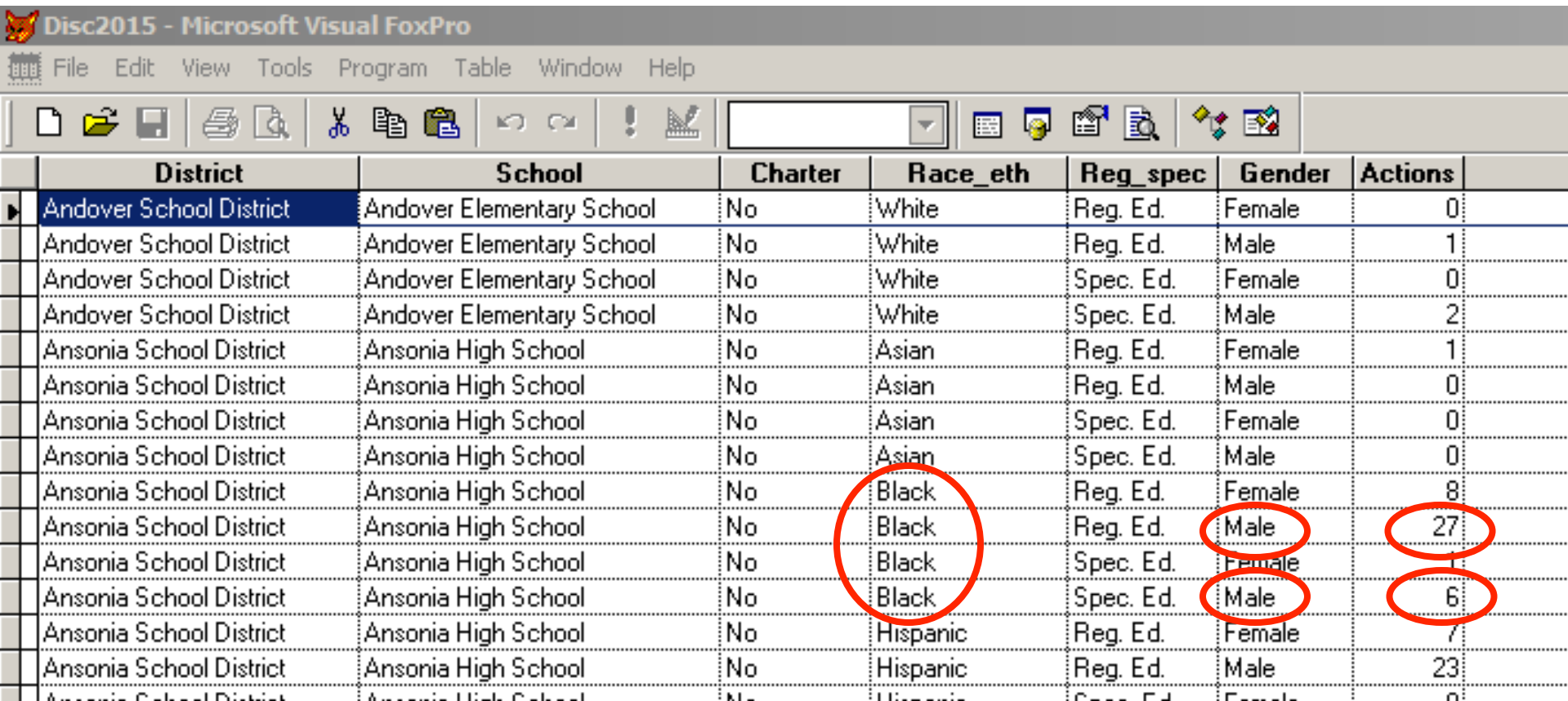
Disc2015 - Microsoft Visual FoxPro

File Edit View Tools Program Table Window Help

District	School	Charter	Race_eth	Reg_spec	Gender	Actions
Andover School District	Andover Elementary School	No	White	Reg. Ed.	Female	0
Andover School District	Andover Elementary School	No	White	Reg. Ed.	Male	1
Andover School District	Andover Elementary School	No	White	Spec. Ed.	Female	0
Andover School District	Andover Elementary School	No	White	Spec. Ed.	Male	2
Ansonia School District	Ansonia High School	No	Asian	Reg. Ed.	Female	1
Ansonia School District	Ansonia High School	No	Asian	Reg. Ed.	Male	0
Ansonia School District	Ansonia High School	No	Asian	Spec. Ed.	Female	0
Ansonia School District	Ansonia High School	No	Asian	Spec. Ed.	Male	0
Ansonia School District	Ansonia High School	No	Black	Reg. Ed.	Female	8
Ansonia School District	Ansonia High School	No	Black	Reg. Ed.	Male	27
Ansonia School District	Ansonia High School	No	Black	Spec. Ed.	Female	1
Ansonia School District	Ansonia High School	No	Black	Spec. Ed.	Male	6
Ansonia School District	Ansonia High School	No	Hispanic	Reg. Ed.	Female	7
Ansonia School District	Ansonia High School	No	Hispanic	Reg. Ed.	Male	23
Ansonia School District	Ansonia High School	No	Hispanic	Spec. Ed.	Female	0

# GROUP BY identifies the data piles you want

```
SELECT District, SUM(Actions) AS Totals
FROM Disc2015
WHERE Race_eth = "Black" and Gender = "Male"
GROUP BY District
```



District	School	Charter	Race_eth	Reg_spec	Gender	Actions
Andover School District	Andover Elementary School	No	White	Reg. Ed.	Female	0
Andover School District	Andover Elementary School	No	White	Reg. Ed.	Male	1
Andover School District	Andover Elementary School	No	White	Spec. Ed.	Female	0
Andover School District	Andover Elementary School	No	White	Spec. Ed.	Male	2
Ansonia School District	Ansonia High School	No	Asian	Reg. Ed.	Female	1
Ansonia School District	Ansonia High School	No	Asian	Reg. Ed.	Male	0
Ansonia School District	Ansonia High School	No	Asian	Spec. Ed.	Female	0
Ansonia School District	Ansonia High School	No	Asian	Spec. Ed.	Male	0
Ansonia School District	Ansonia High School	No	Black	Reg. Ed.	Female	8
Ansonia School District	Ansonia High School	No	Black	Reg. Ed.	Male	27
Ansonia School District	Ansonia High School	No	Black	Spec. Ed.	Female	1
Ansonia School District	Ansonia High School	No	Black	Spec. Ed.	Male	6
Ansonia School District	Ansonia High School	No	Hispanic	Reg. Ed.	Female	7
Ansonia School District	Ansonia High School	No	Hispanic	Reg. Ed.	Male	23
Ansonia School District	Ansonia High School	No	Hispanic	Spec. Ed.	Female	0

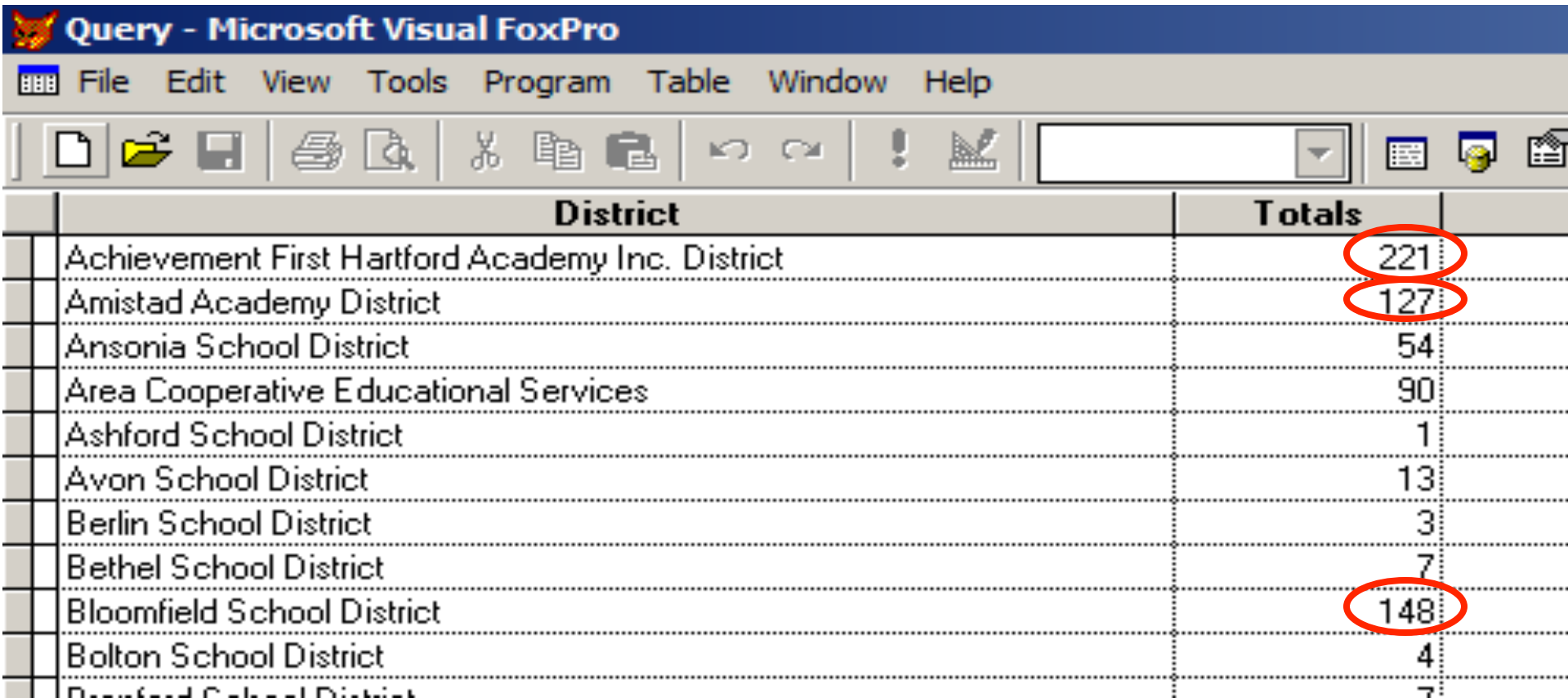


District	Totals
Achievement First Hartford Academy Inc. District	221
Amistad Academy District	127
Ansonia School District	54
Area Cooperative Educational Services	90
Ashford School District	1
Avon School District	13
Berlin School District	3
Bethel School District	7
Bloomfield School District	148
Bolton School District	4
Branford School District	7
Bridgeport Achievement First District	46
Bridgeport School District	1117
Bristol School District	60
Brookfield School District	1
Brooklyn School District	2
Canton School District	1
Capitol Region Education Council	104



# HAVING is like WHERE for aggregated data

```
SELECT District, SUM(Actions) AS Totals
FROM Disc2015
WHERE Race_eth = "Black" and Gender = "Male"
GROUP BY District
HAVING Totals >100
```



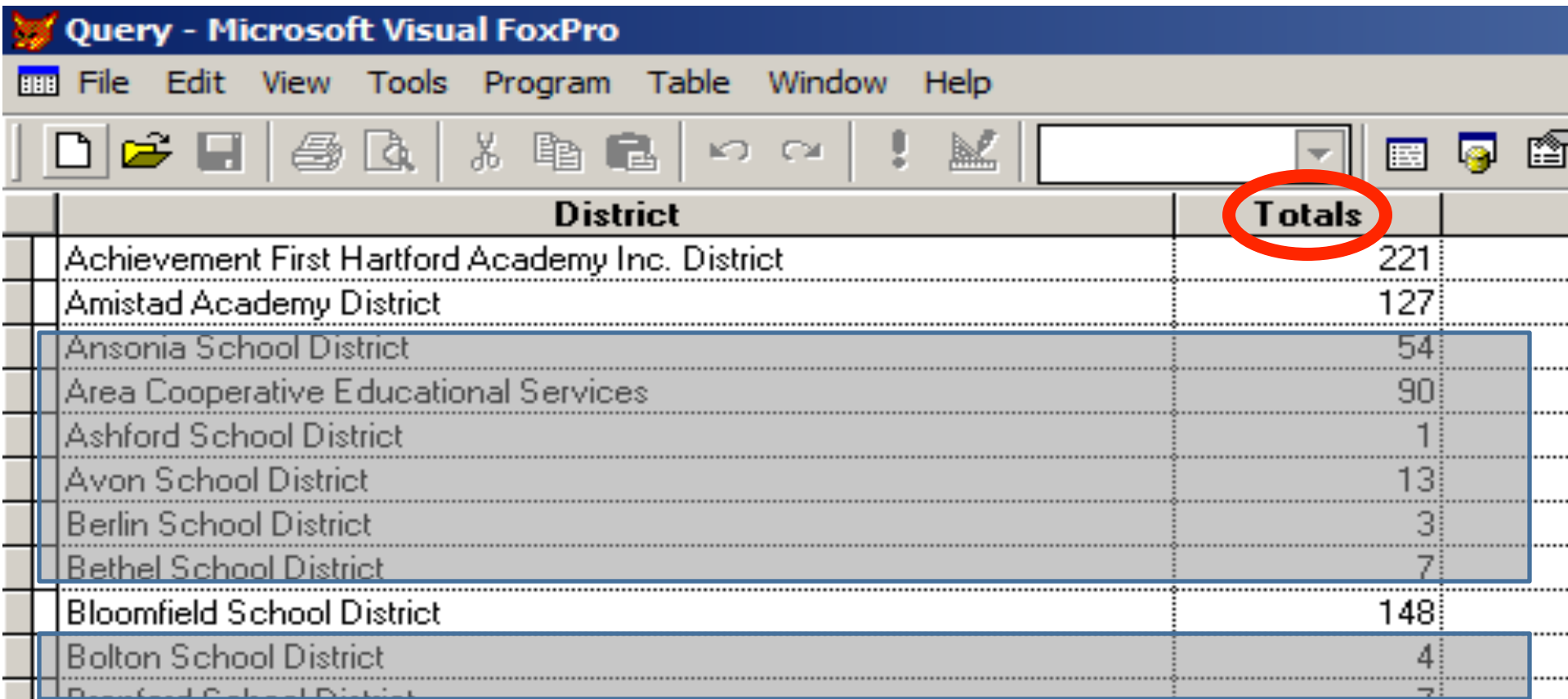
Query - Microsoft Visual FoxPro

File Edit View Tools Program Table Window Help

District	Totals
Achievement First Hartford Academy Inc. District	221
Amistad Academy District	127
Ansonia School District	54
Area Cooperative Educational Services	90
Ashford School District	1
Avon School District	13
Berlin School District	3
Bethel School District	7
Bloomfield School District	148
Bolton School District	4
Branford School District	7

# ORDER BY is the sort function

```
SELECT District, SUM(Actions) AS Totals
FROM Disc2015
WHERE Race_eth = "Black" and Gender = "Male"
GROUP BY District
HAVING Totals >100
ORDER BY Totals DESC
```



Query - Microsoft Visual FoxPro

File Edit View Tools Program Table Window Help

District	Totals
Achievement First Hartford Academy Inc. District	221
Amistad Academy District	127
Ansonia School District	54
Area Cooperative Educational Services	90
Ashford School District	1
Avon School District	13
Berlin School District	3
Bethel School District	7
Bloomfield School District	148
Bolton School District	4
Brewster School District	7



District	Totals
Bridgeport School District	1117
Hartford School District	951
Waterbury School District	761
New Haven School District	690
East Hartford School District	382
Norwalk School District	256
Hamden School District	249
New Britain School District	227
Achievement First Hartford Academy Inc. District	221
Connecticut Technical High School System	210
Windsor School District	190
Stratford School District	157
New London School District	150
Bloomfield School District	148
West Haven School District	146
Meriden School District	136
Amistad Academy District	127
Manchester School District	125
Stamford School District	125
Middletown School District	105
Capitol Region Education Council	104

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Matthew Kauffman

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