

Names' Survey in the Population Administration: State of Israel

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TRANSLATORS' INTRODUCTION

This article shows a unique contribution for onomastics which was made in the course of carrying out a practical government project. In this case, Nissim Eliassaf, a computer expert, was faced with the task of trying to reduce the workload for his computer system. He had at his disposal all of the name records of the entire State of Israel. His study of names has produced a wealth of information for onomasticians.

Table 1 shows the distribution of the number of letters in personal names; Table 3, for family names. Table 2 shows the distribution of first names by frequency; Table 4, for family names. Tables 5a and 5b show the distribution of the 100 most common personal names of all residents of Israel. A number of these names are Arab names. It is well to remember that about 16% of the current population of Israel is Arab. The last two Tables, 6 and 7, demonstrate the change in naming practices over time by showing the most common names of residents born in 1900 and those born in 1978.

In examining Tables 5-7 the reader should be aware that there are some transliteration difficulties which may account for different or less familiar spellings of some names. Some Israeli family names were originally European which were transcribed into Hebrew, and now we have them in English. An example is the family name which is most commonly spelled Schwartz but which is also spelled Schwarz, Schvarc, Svarc, Svartz, and Swartz. The Hebrew has two spellings, one with a single *vav* (the letter corresponds to the English *v*) and the other with a double *vav* (the double *vav* is used to indicate a *w* from a Western language). Since the *w* in Schwartz is often pronounced as a *v*, there was no clear answer. So, Schwartz has two entries in Table 5a.

Another problem with Hebrew (and also Arabic) is that only the consonants appear

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in the written form. The diacritical marks which give the vowel sounds do not usually appear in printed or written form except for children's books and easy reading materials for foreigners. The vowels are left for the reader's experience and judgment to fill in. Thus, the name Tamar would appear as TMR, Menachem as MNHM, Dan as DN (there are no lower case letters in Hebrew or Arabic). Names from Arabic present additional difficulty having been once transcribed from Arabic to Hebrew and now to English. Variations in the transcribing process can spell Mohammed as Mohamad, Mohamed, Mouhamed, Muhamad as well as others.

The switch to data bases and communications places economic value on the size of records. The longest fields in the populations collections are names (family, personal, parents, etc.). Some systems require maintenance of these names in more than one language. The purpose of this survey was to examine the following two possibilities:

- a. automatic coding and translation of names with a code (number or symbol) replacing the name in the collection; the translation of the code would then appear in a separate table. Tables could exist in several languages, which would enable automatic translation of names from one language to another by means of computer.
- b. finding the optimal field size to be allocated to personal and to family names (in Hebrew).

Since the study was done by computer, it was decided to test the distribution of personal and family names according to number of appearances. It should be noted that although this test did not significantly increase the cost of the survey, it did produce results which were interesting in their own right. The survey was conducted in the Automation Department of the Ministry of the Interior. The input file for the survey was the backup file of the Population Administration updated to June 1979.

STATISTICAL FINDINGS

1. Total tested population: 4,608,291.
2. Total number of residents with more than one personal name: 317,974.
3. Total number of varieties of personal names: 101,218.
4. Distribution of personal names according to number of letters: see Table 1.
5. Distribution of personal names according to frequency: see Table 2.
6. Total number of varieties of family names: 222,028.
7. Distribution of family names according to number of letters: see Table 3.
8. Distribution of family names according to frequency: see Table 4.

RESULTS

- A. Name coding (the reference is not to manual coding but to automatic coding with a computer program) yields a total number of varieties of personal and family names of 323,246. However, the combination of personal and family names shows that 25,000 of these names serve as both first (personal) and last (family) names, leaving 298,000 varieties of names.
- B. The optimal fields length in Table 1 indicates that reserving six letters for personal names covers about 97.6% of the residents of Israel. Table 6 shows that reserving eight letters for family names covers 96.5% of the residents.
- C. 8,600 name varieties cover 92% of personal and 72% of family names in Israel.

It is possible to switch to a name-coding system once the economic problem of the system is solved: and that is — how to store names not automatically translated (several technical possibilities exist for the solution of the problem; Tables 6 and 7 present the most popular names in Israel).

Table 1. Distribution of Personal Names According to Number of Letters

Number of Letters	Frequency	Percentage	Cumulative Percentage
1	293	.006	.006
2	66,289	1.435	1.441
3	888,737	19.241	20.682
4	1,940,737	42.017	62.699
5	1,264,395	27.374	90.073
6	346,842	7.509	97.582
7	91,197	1.974	99.556
8	4,255	.092	99.648
9	10,988	.238	99.886
10	3,635	.079	99.965
11	993	.021	99.986
12	308	.007	99.993
13	123	.003	99.996
14	44	.001	99.997
15	112	.003	100.000

Table 2. Distribution of Personal Names According to Number of Appearances

Number of Appearances	Frequency (Total Names)	Number of Appearances	Frequency (Total Names)
1	62,260	101-200	956
2	12,318	201-300	471
3	5,466	301-400	262
4	3,314	401-500	179
5	2,256	501-600	137
6	1,577	601-700	114
7	1,201	701-800	78
8	962	801-900	64
9	803	901-1,000	47
10	587	1,001-2,001	290
11-20	3,148	2,001-3,000	108
21-30	1,513	3,001-4,000	57
31-40	877	4,001-5,000	45
41-50	540	5,001-6,000	35
51-60	435	6,001-7,000	17
61-70	341	7,001-8,000	14
71-80	267	8,001-9,000	11
81-90	193	9,001-10,000	13
91-100	194	10,001 and over	68
Total number of name varieties: 101,218.			

Thus, 62,260 different names appeared only once in the records, 962 different names appeared 8 times.

Table 3. Distribution of Family Names According to Number of Letters

Number of Letters in Name	Frequency	Percentage	Cumulative Percentage
1	9	.000	.000
2	55,029	1.194	1.194
3	647,784	14.058	15.252
4	1,227,463	26.638	41.890
5	1,135,444	24.858	66.748
6	733,971	15.929	82.677
7	418,376	9.079	91.756
8	220,498	4.789	96.541
9	97,390	2.124	98.665
10	42,136	.914	99.579
11	15,094	.328	99.907
12	3,856	.084	99.991
13	204	.005	99.996
14	85	.002	99.998
15	65	.001	99.999
16	13	.000	
17	7	.000	
18	-	-	
19	2	.000	

Table 4. Distribution of Family Names According to Frequency of Appearance

Frequency of Appearance	Number of (Different) Names	Frequency of Appearance	Number of (Different) Names
1 (once)	102,769	101-200	2,805
2	29,571	201-300	1,065
3	15,079	301-400	539
4	11,125	401-500	318
5	7,813	501-600	242
6	6,043	601-700	174
7	4,809	701-800	136
8	3,703	801-900	104
9	3,104	901-1,000	86
10	2,617	1,001-2,001	407
11-20 times	13,032	2,001-3,001	142
21-30	6,054	3,001-4,000	56
31-40	3,297	4,001-5,000	26
41-50	2,067	5,001-6,000	19
51-60	1,534	6,001-7,000	13
61-70	1,098	7,001-8,000	4
71-80	861	8,001-9,000	5
81-90	670	9,001-10,000	3
91-100	627	10,001 and over	11
Total: 222,028 different names.			

Table 5a. Distribution of Family Names in Israel:
Population Report, All Residents

Name	Frequency	Name	Frequency
1. Cohen	104,832	51. Ovadia	5,319
2. Levy	64,983	52. Suissa	5,272
3. Mizrachi	23,623	53. Ohana	5,266
4. Peretz	16,027	54. Agabariya	5,138
5. Biton	15,803	55. Hassan	5,038
6. Abraham	11,925	56. Dayan	4,926
7. Friedman	11,477	57. Goldberg	4,888
8. Dahan	11,335	58. Zuabi	4,877
9. Katz	11,233	59. Haim	4,851
10. Yoseph	10,712	60. Maimon	4,798
11. Azulai	10,273	61. Attias	4,765
12. David	9,578	62. Maiman	4,715
13. Malka	9,463	63. Ezra	4,698
14. Schwartz*	9,396	64. BenHamu	4,631
15. Ashkenazi	8,873	65. Golan	4,599
16. Amar	8,728	66. Weiss	4,597
17. Gabbai	8,512	67. Vaknin	4,464
18. Segal	8,281	68. Asulin	4,450
19. Haddad	8,081	69. Yehezkel	4,409
20. Ohayon	7,973	70. Feldman	4,389
21. Bachar	7,571	71. Sabagh	4,375
22. Klein	7,372	72. Gross	4,436
23. Moshe	7,360	73. Yisrael	4,310
24. BenDavid	6,822	74. Liebowitz	4,292
25. Rosenberg	6,776	75. Mansour	4,274
26. Hatib	6,756	76. Amsalem	4,247
27. Shapiro	6,697	77. Solomon	4,174
28. Greenberg	6,623	78. Rahamim	4,112
29. Yaakov	6,528	79. Lavi	4,084
30. Edri	6,512	80. Rabinowitz	4,055
31. Hazan	6,313	81. Rubin	4,005
32. Yitzhak	6,284	82. Tal	3,998
33. Levine	6,275	83. Abramowitz	3,943
34. Mahamad	6,271	84. Suad	3,942
35. Meir	6,190	85. Kadosh	3,856
36. Shemesh	6,163	86. Shmuel	3,852
37. Sasson	5,994	87. Turgeman	3,846
38. Shar'abi	5,967	88. Markowitz	3,843
39. Baruch	5,888	89. Aharon	3,825
40. Shalom	5,859	90. Alon	3,811
41. Huri	5,782	91. Masarwa	3,787
42. Eliahu	5,780	92. Gutman	3,732
43. Nahum	5,761	93. Yitzhaki	3,697

Table 5a. *Continued*

Name	Frequency	Name	Frequency
44. Herskowitz	5,716	94. Schwartz*	3,665
45. Berkowitz	5,674	95. Berger	3,641
46. Elbaz	5,503	96. Shachar	3,583
47. Goldstein	5,480	97. Sofer	3,581
48. Stern	5,474	98. Zarfaty	3,576
49. Gavarin	5,368	99. Fisher	3,568
50. Mahagna	5,366	100. Fuchs	3,543

*The name Schwartz appears twice because of transcription difficulties (please see translators' introduction).

Table 5b. Distribution of Frequency of Personal Names in Israel:
Population Report, All Residents

Name	Frequency	Name	Frequency
1. Yosef	88,659	51. Anat	12,745
2. Moshe	80,890	52. Tova	12,395
3. Abraham	76,104	53. Fatma	12,167
4. Rachel	70,741	54. Zion	12,108
5. David	69,530	55. Dalia	12,056
6. Yaakov	68,293	56. Eliezer	12,007
7. Esther	66,778	57. Reuben	11,971
8. Yitzhak	65,771	58. Dina	11,969
9. Sarah	60,285	59. Prinah	11,659
10. Miriam	55,449	60. Eli	11,608
11. Hannah	46,713	61. Menachem	11,598
12. Haim	45,736	62. Ilan	11,551
13. Shlomo	38,751	63. Ronit	11,548
14. Rivka	37,995	64. Uri	11,111
15. Shmuel	32,835	65. Hava	10,906
16. Eliahu	32,453	66. Sharon	10,649
17. Mordechai	32,156	67. Zehava	10,430
18. Shoshana	30,710	68. Ephraim	10,014
19. Meir	30,605	69. Yehoshua	9,966
20. Leah	29,463	70. Baruch	9,846
21. Shimon	26,985	71. Orli	9,710
22. Yehuda	24,641	72. Zeev or Zev	9,684
23. Yisrael	24,324	73. Frieda	9,458
24. Mohammed	22,861	74. Naomi	9,366
25. Zvi	21,432	75. Shaul	9,336

Table 5b. *Continued*

Name	Frequency	Name	Frequency
26. Michael	21,192	76. Mahmud	9,282
27. Ruth	20,592	77. Orit	9,214
28. Haya	20,162	78. Yehezkel	9,209
29. Yehudit	20,001	79. Iris	9,194
30. Malka	19,068	80. Pinchas	9,052
31. Arieh	18,814	81. Batia	9,004
32. Shalom	18,080	82. Asher	8,914
33. Michal	18,007	83. Yonah	8,897
34. Mazal	17,880	84. Gabriel	8,770
35. Zippora	16,866	85. Ali	8,728
36. Nissim	16,862	86. Rina	8,666
37. Aaron or Aron	16,509	87. Nathan	8,333
38. Simcha	16,319	88. Nurit	8,284
39. Raphael	16,208	89. Dov	8,221
40. Yafa	15,854	90. Albert	8,161
41. Benjamin	15,813	91. Aharon	8,136
42. Yael	15,416	92. Galit	8,028
43. Daniel	14,870	93. Yoram	7,997
44. Tamar	14,718	94. Clara	7,861
45. Devorah	14,635	95. Keren	7,850
46. Ilana	14,215	96. Dan	7,717
47. Aliza	13,355	98. Aviva	7,677
48. Ahmad	13,198	97. Ronen	7,687
49. Rosa	13,145	99. Shai	7,592
50. Shulamit	13,005	100. Bracha	7,574

Table 6. Distribution of Personal Names in Israel:
Population Report: Those Born in 1900

Rank/Name	Frequency	Rank/Name	Frequency
1. Yosef	745	50. Haviva	91
2. Moshe	734	51. Ephraim	90
3. Abraham	696	52. Bertha	87
4. Esther	683	53. Yonah	85
5. Sarah	660	54. Naima	84
6. Rachel	632	55. Baruch	83
7. Miriam	570	56. Massoud	82
8. Yaakov	562	57. Fatma	82
9. Yitzhak	549	58. Anna	81
10. Hannah	547	59. Yehoshua	81
11. David	527	60. Maria	81
12. Rivka	442	61. Ezra	79
13. Haim	403	62. Menachem	77
14. Shmuel	326	63. Michael	75
15. Leah	295	64. Zohara	74
16. Simcha	281	65. Sultana	74
17. Rosa	280	66. Aziza	74
18. Shlomo	275	67. Pinchas	72
19. Eliahu	269	68. Aharon	69
20. Haya	250	69. Manasseh	69
21. Mordechai	242	70. Batya	67
22. Meir	222	71. Sophia	67
23. Yisrael	214	72. Solomon	66
24. Georgia	194	73. Yafa	65
25. Yehuda	190	74. Zion	65
26. Zvi	165	75. Dina	64
27. Shoshana	155	76. Zahara	64
28. Farcha	154	77. Dov	63
29. Regina	153	78. Hanina	63
30. Aaron or Aron	146	79. Bella	62
31. Shalom	141	80. Said	62
32. Tova	140	81. Yehudit	61
33. Massouda	135	82. Ahmad	60
34. Frieda	134	83. Ida	60
35. Devora	133	84. Bracha	60
36. Mohammed	127	85. Salim	60
37. Nissim	123	86. Rahamim	60
38. Hava	116	87. Yehiye	59
39. Mafora	114	88. Kadoury	59
40. Yehezkel	109	89. Mendel	59
41. Lulu	105	90. Nathan	59
42. Clara	105	91. Alexander	58
43. Benjamin	104	92. Georgy	58

Table 6. *Continued*

Rank/Name	Frequency	Rank/Name	Frequency
44. Eliezer	103	93. Zeev or Zev	58
45. Arieh	103	94. Mina	57
46. Mazal	103	95. Nahum	57
47. Raphael	102	96. Matilda	54
48. Siuda	100	97. Fanny	54
49. Reuben	96	98. Prinah	54

Table 7. Distribution of Personal Names in Israel:
Population Report: Those Born in 1978

Rank/Name	Frequency	Rank/Name	Frequency
1. Keren	775	51. Eran	249
2. Michal	673	52. Moran	248
3. David	639	53. Man'al	241
4. Mohammed	615	54. Galit	240
5. Moshe	614	55. Naamah	239
6. Yosef	585	56. Ophir	238
7. Meital	567	57. Mahmud	236
8. Yaniv	558	58. Yisroel	230
9. Rachel	506	59. Ayal	229
10. Yitzhak	500	60. Itai	229
11. Yaakov	499	61. Michael	229
12. Shai	496	62. Shachar	229
13. Liat	483	63. Hagit	225
14. R'oi	474	64. Mahamad	225
15. Abraham	469	65. Uri	224
16. Yael	451	66. Sarah	222
17. Adi	437	67. Eliahu	221
18. Sharon	424	68. Yif'at	219
19. Assaf	422	69. Rivka	214
20. Tal	410	70. Alon	212
21. Esther	378	71. Shmuel	210
22. Lior	378	72. Eli	208
23. Oren	373	73. Amit	207
24. Haim	368	74. Erez	206
25. Nir	363	75. Orly	202
26. Amir	354	76. Yehuda	202
27. Guy	351	77. Shirli	202

Table 7. *Continued*

Rank/Name	Frequency	Rank/Name	Frequency
28. Meirav	351	78. Hadas	201
29. Anat	346	79. Yossi	197
30. Ahmad	345	80. Liron	197
31. Miriam	344	81. Yamit	196
32. Tomer	340	82. Nasrin	195
33. Schlomo	338	83. Yaron	190
34. Hila	329	84. Noa	190
35. Efrat	327	85. Shiri	189
36. Sarit	324	86. Ali	188
37. Maya	321	87. Elad	187
38. Carmit	308	88. Ronen	183
39. Orit	291	89. Shlomit	183
40. Shimon	287	90. Vered	182
41. Limor	281	91. Gil	181
42. Tali	279	92. Einat	180
43. Hannah	276	93. Lilach	177
44. Dana	274	94. K'fir	173
45. Inbal	268	95. Ran	172
46. Meir	264	96. Yafit	171
47. Tamar	263	97. Ronit	165
48. Avi	259	98. Samir	163
49. Revital	258	99. Ilan	162
50. Mordechai	249	100. Ashraf	162

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Even through naming is in some sense “instinctual,” there is no reason to expect we can ever identify the “instinct” that underlies it. Efforts to do so, . . . are examples of psychoanalysis gone to seed. It is, however, not too much to hope that some universally valid criteria for defining names can be found. If such criteria suggest an explanation for the universality, so much the better. But having no explanation is better than having a misleading one.

John Algeo, *On Defining the Proper Names*, p. 11.