ight not be

d relations. and is used y, the referto another Figure 5.6, which each he Dnumber

of a foreign tegrity con-(in relation the follow-

y attributes elation  $R_2$ . rs as a value i the former ferences or

renced relam  $R_1$  to  $R_2$  is y referential

of the meannemas of the relationships consider the Dno refers to o to be a formeans that a ue of the priple  $t_2$  of the yee does not Figure 5.6 the ' department,

the attribute nis is another Super\_ssn is a i the tuple for

Figure 5.6 One possible database state for the COMPANY relational database schema.

## **EMPLOYEE**

Fname	Minit	Lname	Ssn	Bdate	Address	Sex	Salary	Service and	120 74
John :	В	Smith	123456789	1965-01-09				Super_ssn	Dno
	т				731 Fondren, Houston, TX	М	30000	333445555	5
Franklin		Wong	333445555	1955-12-08	638 Voss, Houston, TX		40000	888665555	5
Alicia	J	Zelaya	999887777	1968-01-19	968-01-19 3321 Castle, Spring, TX I		25000	987654321	4
Jennifer	S	Wallace	987654321	1941-06-20			43000	888665555	
Ramesh	K	Narayan	666884444	1962-09-15			38000		4
Joyce	. A	English	453453453	1972-07-31				333445555	5
Ahmad	V	Jabbar	987987987	1969-03-29		F	25000	333445555	5
				1909-03-29	980 Dallas, Houston, TX	M	25000	987654321	4
James	E	Borg	888665555	1937-11-10	450 Stone, Houston, TX	М	55000	NULL	1

## DEPARTMENT

987987987

987654321

987654321

888665555

30

20

20.0

15.0

NULL

Dname Dname	Dnumber	- Mgr_ssn	Mgr_start_date
Research	5	333445555	1988-05-22
Administration	4 · ·	987654321	1995-01-01
Headquarters	1	888665555	1981-06-19

WORKS_ON				PROJECT		5	Н
Essn 832	Pno	Hours		Pname	Pnu	mber Ploca	
123456789	1	32.5		ProductX		1 Bellaire	
123456789	2	7.5		ProductY		_	_
666884444	3	40.0	* 2	ProductZ		Sugarl Housto	
453453453	1	20.0		Computerization	-	10 Staffor	
453453453	2	20.0		Reorganization	-	20 Housto	
333445555	2	10.0		Newbenefits	-	30 Staffor	
333445555	3	10.0				o Stanoi	u
333445555	10	10.0	DEPENDENT				
333445555	20	10.0	Essn	_Dependent_name	W_1.7.8	Total teachers	a la traca
999887777	30	30.0	7.5 N. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.		Sex	Bdate	Rel
999887777	10	10.0	333445555	Alice	F	1986-04-05	Da
987987987	10	35.0	333445555	Theodore	. M	1983-10-25	Sc
			333445555	Joy	F	1058-05-00	0-

<u>Essn</u>	Dependent_name	Sex	Bdate	Relationship
333445555	Alice	F	1986-04-05	Daughter
333445555	Theodore	. M	1983-10-25	Son
333445555	Joy	F	1958-05-03	Spouse
987654321	Abner	М	1942-02-28	Spouse
123456789	Michael	M	1988-01-04	Son
123456789	Alice	F	1988-12-30	Daughter
123456789	Elizabeth	F	1967-05-05	Spouse

## DEPT\_LOCATIONS

Dnumber 1	Diocation		
1	Houston		
. 4	Stafford		
5	Bellaire		
5	Sugarland		
5	Houston		

Dnum

5

5