

Table 1 Basic Worker Characteristics of Team Members and Non-team Members as of November 30, 2001

	All operators			Members			Non-members		
	Mean	SD	N	Mean	SD	N	Mean	SD	N
Tenure (years)	3.83	3.72	134	3.52	2.84	54	4.04	4.23	80
Age	39.25	12.17	134	37.29	9.55	54	40.56	13.56	80
hourly wage (dollars)	7.64	1.32	134	7.67	1.27	54	7.63	1.37	80
Proportion male (%)	38.06		134	27.78**		54	45.00		80
Proportion with education beyond high school (%)	33.33		102	40.00		40	29.03		62

Source: Personnel data provided by PARTS

Note: ***the difference between members and non-members statistically significant at the 1% level

**the difference between members and non-members statistically significant at the 5% level

*the difference between members and non-members statistically significant at the 10% level

Table 2 EFFICIENCY, REJECTION RATE, and DOWNTIME

		EFFICIENCY individual production as a percentage of norm	REJECTION RATE individual defective production as a percentage of total production	DOWNTIME individual downtime hours	
All employees	Mean	83.487	0.561	0.890	
	S.D.	25.756	1.775	1.067	
	N	52944	30263	52657	
All non-team members	Mean	84.196	0.502	0.918	
	S.D.	26.904	1.713	1.065	
	N	30734	16827	30705	
All team members	Before	Mean	78.643	0.814	0.665
	After	Mean	84.955	0.399	0.969
	Difference		6.312***	-0.415***	0.304***
More educated members	Before	Mean	82.706	0.684	0.819
	After	Mean	86.912	0.358	0.965
	Difference		4.206***	-0.326***	0.146***
Less educated members	Before	Mean	82.973	0.559	0.867
	After	Mean	83.181	0.410	0.991
	Difference		0.208	-0.149***	0.124***
Solicited members	Before	Mean	75.085	1.212	0.605
	After	Mean	79.357	0.574	0.771
	Difference		4.272***	-0.638***	0.166***
Unsolicited members	Before	Mean	80.767	0.655	0.673
	After	Mean	87.305	0.297	1.032
	Difference		6.538***	-0.358***	0.359***

Source: All data provided by PARTS. Data are for 134 operators at PARTS during the period January 1, 1999 to November 30, 2001.

Notes:

1. More educated members=team members with formal education beyond high school.
2. Less educated members=team members without formal education beyond high school.
3. Solicited members=employees who became team members with management solicitation.
4. Unsolicited members=employees who became team members without management solicitation.

***statistically significant at the 1% level **statistically significant at the 5% level *statistically significant at the 10% level

Table 3A The Effects on EFFICIENCY, REJECTION RATE, DOWNTIME of Team Membership:
Fixed Effect Estimates for All Members

Independent Variable	Dependent Variable								
	EFFICIENCY			REJECTION RATE			DOWNTIME		
	Mean of Independent Variable	(1)	(2)	Mean of Independent Variable	(3)	(4)	Mean of Independent Variable	(5)	(6)
MEMBER _{it}	0.257	2.668*** (6.202)	2.515*** (5.832)	0.192	-0.152*** (3.160)	-0.142*** (2.942)	0.255	0.253*** (13.060)	0.236*** (12.181)
DAYS IN TEAM _{it}	0.785	-0.284*** (2.631)	-0.325*** (2.993)	0.491	0.024* (1.668)	0.034** (2.287)	0.787	-0.016*** (3.332)	-0.020*** (4.104)
Controlling for the tenure of the worker and its square		No	Yes		No	Yes		No	Yes
N	52944	52944	52944	30263	30263	30263	52657	52657	52657
Adjusted R-squared		0.348	0.348		0.106	0.107		0.250	0.252

Source: All data provided by PARTS. Data are for 134 operators at PARTS during the period January 1, 1999 to November 30, 2001.

Notes:

1. MEMBER_{it} is 1 if Worker i is a team member in Time t, and zero otherwise.
2. DAYS IN TEAM_{it} = the number of days for which Worker i has been a team member at Time t.
3. All models include individual fixed effects and monthly time dummy variables. Absolute values of t statistics are in parentheses.
***statistically significant at the 1% level **statistically significant at the 5% level *statistically significant at the 10% level

Table 3B The Estimated Team Effects When Adding Those Who Quit During the Period
Fixed Effect Estimates for All Members

Independent Variable	Dependent Variable					
	EFFICIENCY		REJECTION RATE		DOWNTIME	
	Mean of Independent Variable	(1)	Mean of Independent Variable	(3)	Mean of Independent Variable	(5)
MEMBER _{it}	0.175	2.608*** (6.168)	0.147	-0.160*** (3.110)	0.173	0.252*** (13.374)
DAYS IN TEAM _{it}	0.534	-0.364*** (3.420)	0.376	0.028* (1.810)	0.534	-0.017*** (3.563)
N	77819	77819	39488	39488	77629	77629
Adjusted R-squared		0.382		0.124		0.252

Source: All data provided by PARTS.

Data are for all operators who worked at least one day at PARTS during the period January 1, 1999 to November 30, 2001.

Notes:

1. MEMBER_{it} is 1 if Worker i is a team member in Time t, and zero otherwise.
 2. DAYS IN TEAM_{it} = the number of days for which Worker i has been a team member at Time t.
 3. All models include individual fixed effects and monthly time dummy variables. Absolute values of t statistics are in parentheses.
 4. No personnel records are available for those who left during the sample period.
- ***statistically significant at the 1% level **statistically significant at the 5% level *statistically significant at the 10% level

Table 4A The Effects on EFFICIENCY, REJECTION RATE, DOWNTIME of Team Membership:
Fixed Effect Estimates for Members Sought After by Management and Other Members

Independent Variable	Dependent Variable								
	EFFICIENCY			REJECTION RATE			DOWNTIME		
	Mean of Independent Variable	(1)	(2)	Mean of Independent Variable	(3)	(4)	Mean of Independent Variable	(5)	(6)
SOLICITED MEMBER	0.076	2.693*** (3.741)	2.685*** (3.731)	0.071	-0.158** (2.006)	-0.155** (1.962)	0.076	0.177*** (5.483)	0.177*** (5.478)
(DAYS IN TEAM)* (SOLICITED MEMBER)	0.207	0.832*** (4.276)	0.754*** (3.861)	0.174	-0.045* (1.819)	-0.033 (1.335)	0.210	-0.028*** (3.218)	-0.036*** (4.153)
UNSOLICITED MEMBER	0.181	2.054*** (3.947)	1.847*** (3.537)	0.121	-0.118** (2.017)	-0.105* (1.790)	0.179	0.305*** (12.998)	0.281*** (11.941)
(DAYS IN TEAM)* (UNSOLICITED MEMBER)	0.577	-0.622*** (5.110)	-0.646*** (5.302)	0.317	0.054*** (3.171)	0.062*** (3.623)	0.577	-0.014*** (2.569)	-0.016*** (2.957)
Controlling for the tenure of the worker and its square		No	Yes		No	Yes		No	Yes
N	52944	52944	52944	30263	30263	30263	52657	52657	52657
Adjusted R-squared		0.349	0.349		0.107	0.107		0.250	0.252

Source: All data provided by PARTS. Data are for 134 operators at PARTS during the period January 1, 1999 to November 30, 2001.

Notes:

1. SOLICITED MEMBER_{it} is 1 if Worker i is a solicited team member in Time t, and zero otherwise. (See Table 1 for the definition of solicited members)
 2. UNSOLICITED MEMBER_{it} is 1 if Worker i is a unsolicited team member in Time t, and zero otherwise. (See Table 1 for the definition of solicited members).
 3. DAYS IN TEAM_{it} = the number of days for which Worker i has been a team member at Time t.
 4. All models include individual fixed effects and monthly time dummy variables. Absolute values of t statistics are in parentheses.
- ***statistically significant at the 1% level **statistically significant at the 5% level *statistically significant at the 10% level

Table 4B Pre-Program Regressions

Independent Variable	EFFICIENCY	REJECTION RATE	DOWNTIME
	PRIOR TO JUNE 1999	PRIOR TO JUNE 1999	PRIOR TO JUNE 1999
	(1)	(2)	(3)
SOLICITED MEMBER	-9.298*** (4.843)	0.588*** (3.340)	-0.370*** (5.776)
UNSOLICITED MEMBER	-12.687*** (12.146)	0.036 (0.475)	-0.250*** (7.053)
TENURE	2.748*** (17.733)	-0.032*** (3.079)	0.015*** (2.794)
TENURE ²	-0.064*** (17.322)	0.001 (2.283)	0.000 (1.231)
MORE EDUCATED	3.271*** (3.219)	-0.001 (0.011)	0.139*** (4.057)
MALE	-8.293*** (7.8570)	-0.351*** (5.3830)	-0.049 (1.3850)
N	3447	2972	3522
Adjusted R-squared	0.098	0.028	0.104

Source: All data provided by PARTS. Data are for 134 operators at PARTS during the period January 1, 1999 to November 30, 2001.

Notes:

1. SOLICITED MEMBER is 1 if Worker i eventually becomes a solicited team member, and zero otherwise.
2. UNSOLICITED MEMBER is 1 if Worker i eventually becomes an unsolicited team member in Time t, and zero otherwise.
3. TENURE is the number of days with PARTS (in 100 days); MORE EDUCATED=1 if Worker i has formal education beyond high school, 0 otherwise; and MALE=1 if Worker i is male, 0 otherwise.
4. All models include four monthly time dummy variables (February of 1999, March of 1999, April of 1999 and May of 1999; and January of 1999 omitted as a reference month).

Absolute values of t statistics are in parentheses.

***statistically significant at the 1% level **statistically significant at the 5% level *statistically significant at the 10% level

Table 5 The Effects on EFFICIENCY, REJECTION RATE, DOWNTIME of Team Membership:
Fixed Effect Estimates for Members with and without Education beyond High School

Independent Variable	Dependent Variable								
	EFFICIENCY			REJECTION RATE			DOWNTIME		
	Mean of Independent Variable	(1)	(2)	Mean of Independent Variable	(3)	(4)	Mean of Independent Variable	(5)	(6)
MORE EDUCATED MEMBER	0.110	3.941*** (5.164)	3.374*** (4.380)	0.059	-0.694*** (6.895)	-0.661*** (6.518)	0.109	0.211*** (6.273)	0.162*** (4.797)
(DAYS IN TEAM)* (MORE EDUCATED MEMBER)	0.356	-0.976*** (5.633)	-0.872*** (5.001)	0.139	0.119*** 3.622	0.120*** (3.670)	0.356	-0.032*** (4.128)	-0.022*** (2.905)
LESS EDUCATED MEMBER	0.128	3.098*** (4.474)	2.856*** (4.117)	0.110	-0.048 (0.637)	-0.038 (0.503)	0.129	0.146*** (4.802)	0.126*** (4.145)
(DAYS IN TEAM)* (LESS EDUCATED MEMBER)	0.335	-1.048*** (5.309)	-1.125*** (5.687)	0.267	-0.054** (2.246)	-0.046* (1.894)	0.340	0.015* 1.762	0.009 (1.050)
Controlling for the tenure of the worker and its square		No	Yes		No	Yes		No	Yes
N	39351	39351	39351	21965	21965	21965	39340	39340	39340
Adjusted R-squared		0.371	0.371		0.106	0.106		0.252	0.254

Source: All data provided by PARTS. Data are for 102 operators at PARTS during the period January 1, 1999 to November 30, 2001.

Notes:

1. MORE EDUCATED MEMBER_{it} is 1 if Worker i is a more educated team member in Time t, and zero otherwise.

(See Table 1 for the definition of more educated members)

2. LESS EDUCATED MEMBER_{it} is 1 if Worker i is a less educated team member in Time t, and zero otherwise.

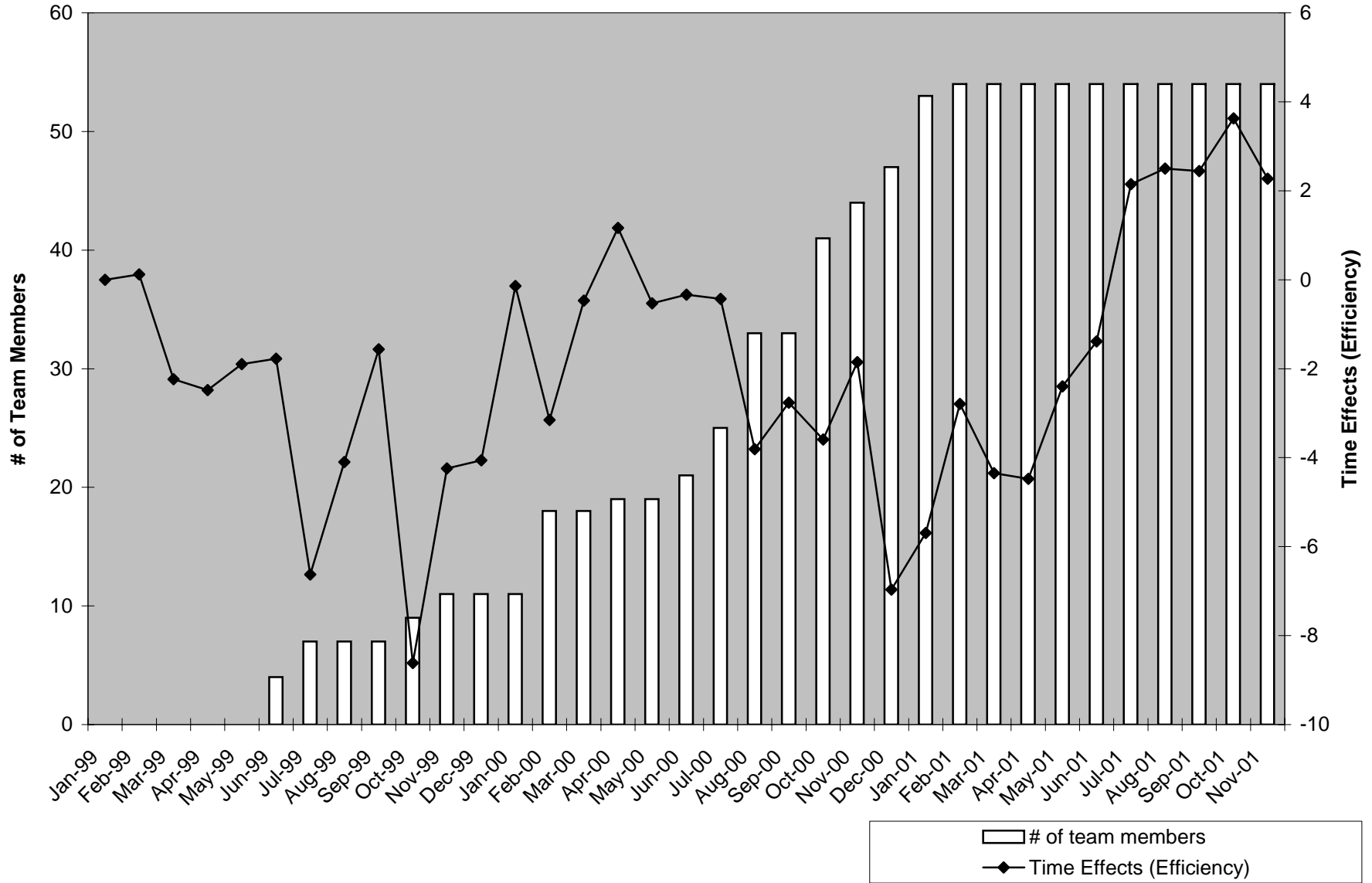
(See Table 1 for the definition of less educated members)

3. DAYS IN TEAM_{it} = the number of days for which Worker i has been a team member at Time t.

4. All models include individual fixed effects and monthly time dummy variables. Absolute values of t statistics are in parentheses.

***statistically significant at the 1% level **statistically significant at the 5% level *statistically significant at the 10% level

Figure 1 Time Effects (EFFICIENCY) and the Number of Team Members: Jan. 1999-Nov. 2001



**Figure 2 Time Effects (REJECTION RATE) and the Number of Team Members:
Jan. 1999-Nov. 2001**

