Changes in Management Intensity, Management Wage Premium, and Employment Growth Across the U.S. Economy 2002 to 2020

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With 228 matched U.S. industries for 2002 and 2020, aggregated data has slightly rising management intensity (MI), defined as management's share of total employment, and minimally declining management wage premium (MWP), defined as the average wage for management divided by the average wage for all other workers. Meaningful pattern differences in MI and MWP across economic sectors are found along with unconditional divergence from 2002 to 2020 in MI, but unconditional convergence in MWP from 2002 to 2020. No association is found between MI and total employment growth, but a negative association between MWP and total employment growth exists.

Keywords: management wage premium, management intensity, wage convergence, wage dispersion, management growth, management compensation

INTRODUCTION

In both the academic research literature and the mainstream business press, it is common to read arguments that the U.S. economy suffers from excessive layers of management (Hamel & Zanini, 2016), or that management is over compensated relative to management's actual contributions to the value of production (Gordon, 1996; Harford, 2006; Leicht and Brady, 2011; Perelman, 2011). Alternatively, the argument regularly is made that too many businesses place too much emphasis on short-term growth in net earnings which leads to excessive reductions in managerial and other staffing and lost long-run productivity and profit growth (Goesaert, Heinz and Venormelingen, 2015; Sucher and Gupta, 2018). Similarly, concerns about inadequate compensation making it difficult to attract or keep qualified managers are regularly found in the literature (Wade et. al., 2006). Other frequent arguments for growth in management's share of total employment include strategic use of titles to avoid overtime payments (Cohen, Gurun, and Ozeal, 2020), expanding management's role in the growth of so-called "bullshit jobs" (Delucchi et al, 2021; Graeber, 2019), and increasing technological intensity of production leading to greater usage of managers (Doms et al, 1997). If the technology drivers of capital for labor substitution (Wadley, 2021) make it easier

In contrast to the slight gain in management's share of total employment at the aggregated level, there is a small decline in average management wages relative to all other workers. Across the 228 industries, the unweighted average value f r the ratio (management ea r ings / all other workers

Across Industry Variation in Management Intensity (MI) and Management Wage Premium (MWP)

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TABLE3

4-DIGIT NAIC INDUSTRIES BY YEAR2020 DECILE OF MANAGEMENT WAGE PREMIUM

(1 LOWEST DECILE)

Sector	1	2	[illegible]	4	5	[illegible]	7	8	[illegible]	[illegible]	[illegible]
I. Ag, Forest, Fishing									1	1	3
2. Mining, Utilities, Construction	2	3	7	5	1						18
3. Manu f cturing	1	2	2	3	7	6	2	13	10	16	62
4. Trade, Transport, Warehousing	6	3	1	3	7	8	12	4	7	2	53
5. In f , FIRE, Pro f ssional Services	3	6	6	7	1	6	2	1	2	3	37
6. Education, Health Care	7	7	2	1	3	3	2				25
7. Arts, Recreation, Hospitality	1	2			2		4	2	2		14
8. Other Services			5	3	2			2	1		13
9. Public Administration	3										3
Total	23	23	23	22	23	23	22	[illegible]	23	23	[illegible]

In sum, the patte r s seen in Tables 2 and 3 indicate that the manu f cturing sector is somewhat of an outlier in that it is not among the most management intensive of the nine sectors, but also has the highest concentration of high management wage premium industries across these sectors.

Formal Tests of Convergence or Divergence in Management Intensity or Wage Premium

While comparing the 2002 nd

These results are presented in Table 4. Given the positive and statistically significant p coefficient in the regression for management intensity (MI), we have evidence of unconditional divergence in MI across the 228 industries from 2002 to 2020. Industries with higher values for MI in 2002 had faster growth rates of MI than did industries with lower values of MI in 2002. For the management wage premium (MWP) however, we find evidence of convergence in MWP across the 228 industries since the p coefficient is negative and statistically significant. Industries with higher 2002 MWP values grew more slowly from 2002 to 2020 than did industries with smaller 2002 MWP values.

TABLE 4
R GRESSION TESTS FOR UNCONDITIONAL CONVERGENCE OR DIVERGENCE
OF MANAGEMENT INTENSITY (MI) AND MANAGEMENT WAGE
PREMIUM (MWP) FROM 2002 TO 2020

Dependent Variable	a (p-value)	β (p-value)	Independent Variable	R^2
%Change $MI_{i,2002,2020}$	-0.068	1.269	$MI_{i,2002}$	0.029
	-0.046	-0.01		
%Change $MWP_{i,2002,2020}$	0.18	-0.08	$MWP_{i,2002}$	0.12
	(< .001)	(< .001)		

Note: Results from estimates of equations 2a and 2b, n = 228 in all regressions

Examining Links Between Total Employment Changes and MI or MWP

We next looked for evidence across the 228 industries of general linkages between management intensity or the management wage premium and the percentage change in total employment from 2002 to 2020. Several different MI and MWP variables were used, and these regression results are summarized in Table 5. As seen in the first three rows of reported regression results, there is no evidence of a statistically eun ŭ ' eist statistica significant relationship between industries MI values in 2002 or in 2020 and their a as the p

CONCLUSION

The popular press commonly has both articles bemoaning the problems of excessive managerial bureaucracy, or alternatively the costs of excessive reductions in management staff caused by "rightsizing" and other business restructuring efforts. This paper finds that in the U.S. at the aggregate level the rise in [redacted]

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