Business Administration

Lecture No. 16: Personnel and Labor Management

1. Basic Concept of Personnel/Labor Management

2. Constituent Factors of Personnel/Labor Management: Case of Local Factory in USA

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1. Basic Concept of Personnel/ Labor Management

Personnel/Labor Management:

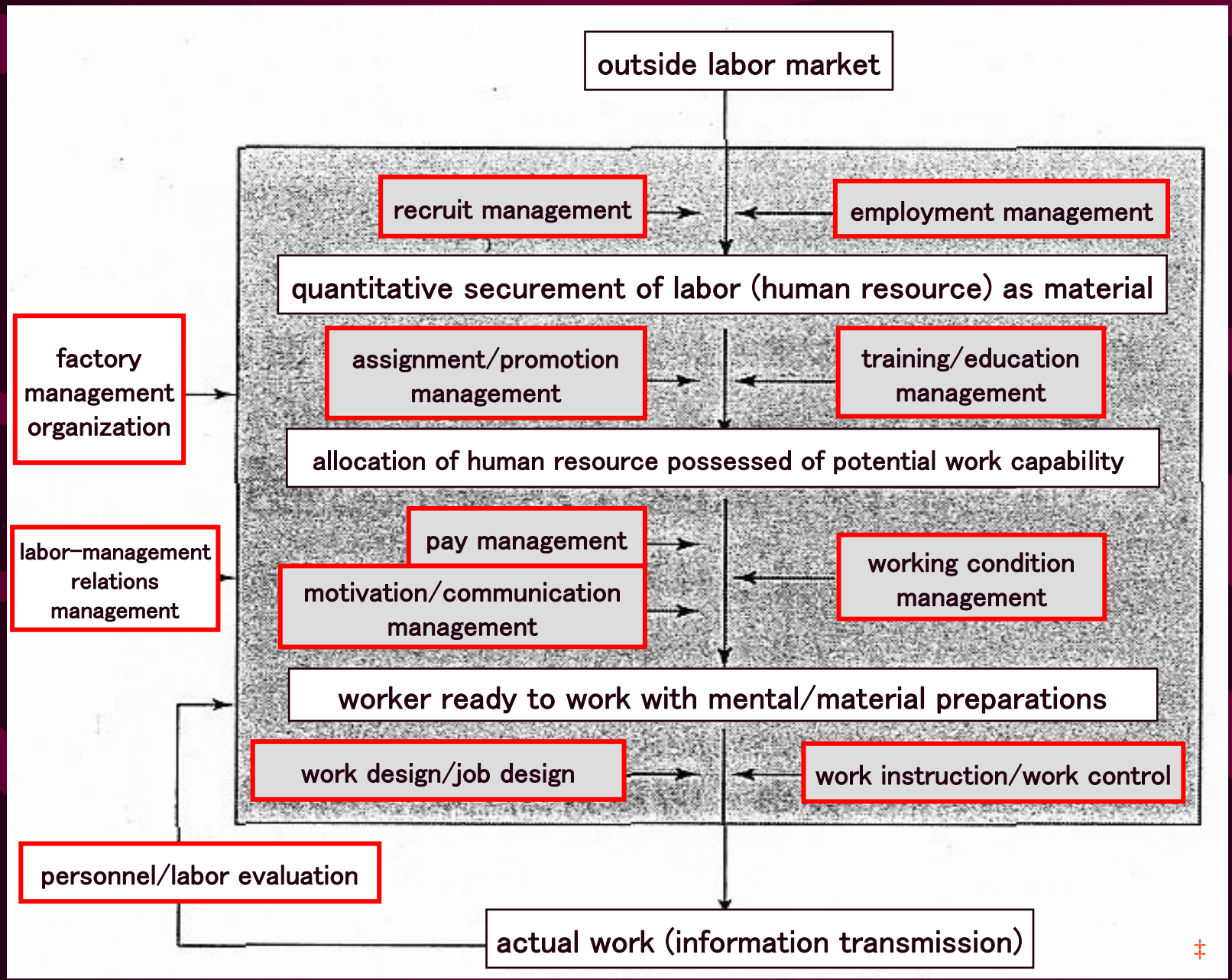
structure of management that is directed at labor (human) within the input (production factors) to the system

Production = transcription of product design information from process onto product

Media to assume product design information in process are:

hardware
software
paper (work standard, etc.)
human (proficiency/skill embodied in human)
→ personnel/labor management

人事･労務管理のプロセス



Takahiro Fujimoto 'Introduction to Production Management' Nihon Keizai Shimbun, Inc. 2001 (Ⅱ p4 figure.10.1)

Structure of Personnel/Labor Management

- labor-management relations management
- recruit management
- recruit quantity management
- assignment/promotion management
- training/education management
- work design/job design
- payroll management
- personnel/labor evaluation
- working condition management
- motivation/communication management
- factory management organization

Takahiro Fujimoto 'Introduction to Production Management'
Nihon Keizai Shimbun, Inc. 2001 (Ⅱp4 figure.10.1)

Objective of Personnel/Labor Management

(1)to secure the quality and quantity of labor being a production factor

(2)to maintain a favorable labor-management relation, and to satisfy laborers themselves

In recent years, a multi-faceted approach has become conspicuous, aiming to attain the two objectives simultaneously.

HRM: Human Resource Management

From control to commitment (Walton)

From Control to Commitment (Walton)

	Control model	Commitment model
Work design	Subdivision of work. Dismantlement of skill (deskill). It takes part only in my work allotment. Dividing into parts of plan (professional skill person) and execution (worker). Work is fixed.	It widely provides for the width of work. Versatile worker (multi-skilled). It is a corporate responsibility for the improvement of the entire system as the team. Integration of plan and execution (worker and engineer's collaborative activities). The work allocation is flexibly changed according to the situation.
Performance evaluating	It evaluates it based on the lowest performance target. Achievement stability intention.	A high target is set. Achievement improvement aim.
Executive organization	Top down. There are a lot of management hierarchies. Management by rule (rule) and procedure. Exertion of authority of which grounds are official authorities. Emphasis of various status symbols.	Flat. The management hierarchy is few. Sharing of value and target. Exertion of authority of which grounds are special abilities (expertise). The status symbol is lost, and it levels it.
Wage system	Only the reward system according to the individual. Service allowance (job-evaluation-based).	Group. Using of group incentive together. Wages on job evaluation (skill-based).
Employment security and training	The labor cost is made variable costs by the lay-off. Disregard of training (single function worker).	Effort to evade lay-off as much as possible. Valuing of training (versatile worker).
Labor relations. Communications	Labor and management communications in narrow scope. Complaint system. Information transmission through collective bargaining. Hostile labor relations (advesarial).	Wide employee participation system. Labor and management's information on data of company sharing. Problem solving by labor and management cooperation.
Operating philosophy	Emphasis of management right. Responsibility valuing to stockholder.	A plural people concerned is considered.

Author making (reference: 'Walton 1985')

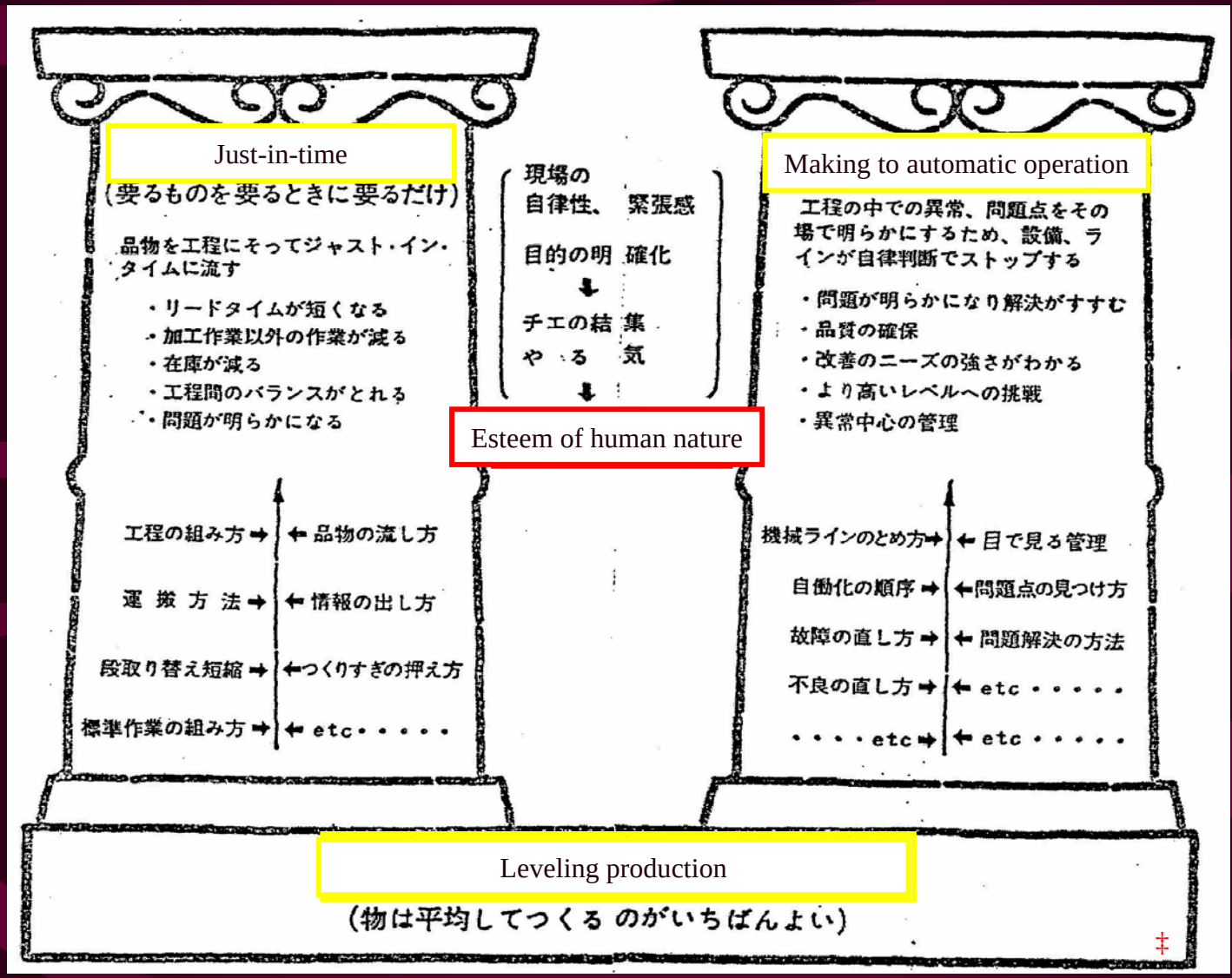
Genealogy of Respect-Employee Thought

Labor reformer
Human Relations
Organization development (OD)
Job enrichment
Y theory (Macgregor)

Nevertheless, does a respect for employees lead to competitiveness?

------ a boom of "Japanese Management" (1980s)

Constituent Factors of Toyota Production System



Yasuhiro Monden 'Field Management of Toyota' Japan Management Association 1978

Characteristic of Assembly Factory of Fleet Car Maker (1989)

	Japanese car factory in Japan	Japanese car factory in North America	The US car factory in North America	The entire Europe
Results:				
Productivity (time/stand)	**16.8**	**21.2**	**25.1**	**36.2**
Quality (defect the number of/100)	**60.0**	**65.0**	**82.3**	**97.0**
Factory layout:				
Space (superficial feet/number/year)	**5.7**	**9.1**	**7.8**	**7.8**
Area of adjustment part:				
(% to area of assembly part)	**4.1**	**4.9**	**12.9**	**14.4**
Stock (There are eight kinds of sample parts on the day)	**0.2**	**1.6**	**2.9**	**2.0**
worker:				
Team organization rate(%)	**69.3**	**71.3**	**17.3**	**0.6**
Alternation system (0=none,4=frequent).	**3.0**	**2.7**	**0.9**	**1.9**
Instruction frequency (piece/person).	**61.6**	**1.4**	**0.4**	**0.4**
Number of duties.	**11.9**	**8.7**	**67.1**	**14.8**
New figure training time number of absence	**380.3**	**370.0**	**46.4**	**173.3**
	5.0	**4.8**	**11.7**	**12.1**

Souce：IMVP World Assembly Plant Survey, 1989, and J.D. Power Initial Quality Survey, 1989

2. Constituent Factors of Personnel/Labor Management : Case of Local Factory in USA

Personnel/labor management of Japanese high-performance companies
----- Is it "applicable" to local factories in overseas ?
Or, "adaptable"?

- Universality theory (valid in overseas, common in nature)
- Particularity theory (Japanese culture)
- History theory (by-product of history of Japan after the war)

Reference : Japanese Management theory
(management familism, groupism, total personality participation, village-roots evolution theory, all-encompassing duties, panhuman respect for man's life and dignity,human network company, etc.)

（1）Labor-Management Relations

In Japan ---

Union by company ⇔ Union by industry

Unionization rate decreasing

Mostly large companies

After the war, in large private manufacturing companies
---- labor-management cooperation

In America ---

Employees' voting determines their unionization.
(under control of NLRB)

Tradition of adversarial labor-management relations

Detailed work rules = against abuses of management authority

No fault on unions per se?

Management problem after all (lesson of NUMMI)

(2) Management of Recruitment/Assignment/Promotion

Recruitment : In Japan (large manufacturing companies in the post-war era) ——

Regular worker ——— periodic recruitment of new graduates
(including apprentices)

Supplement by an intermediate recruitment
(recruiting regular workers from temporary laborers)

Recruitment : In America ———

Opening of post (job opening) → open recruitment

Discrimination measure. Affirmative action program

Seniority: "unmistaken rule"

Questionnaire Allowed and Not Allowed on Job Application

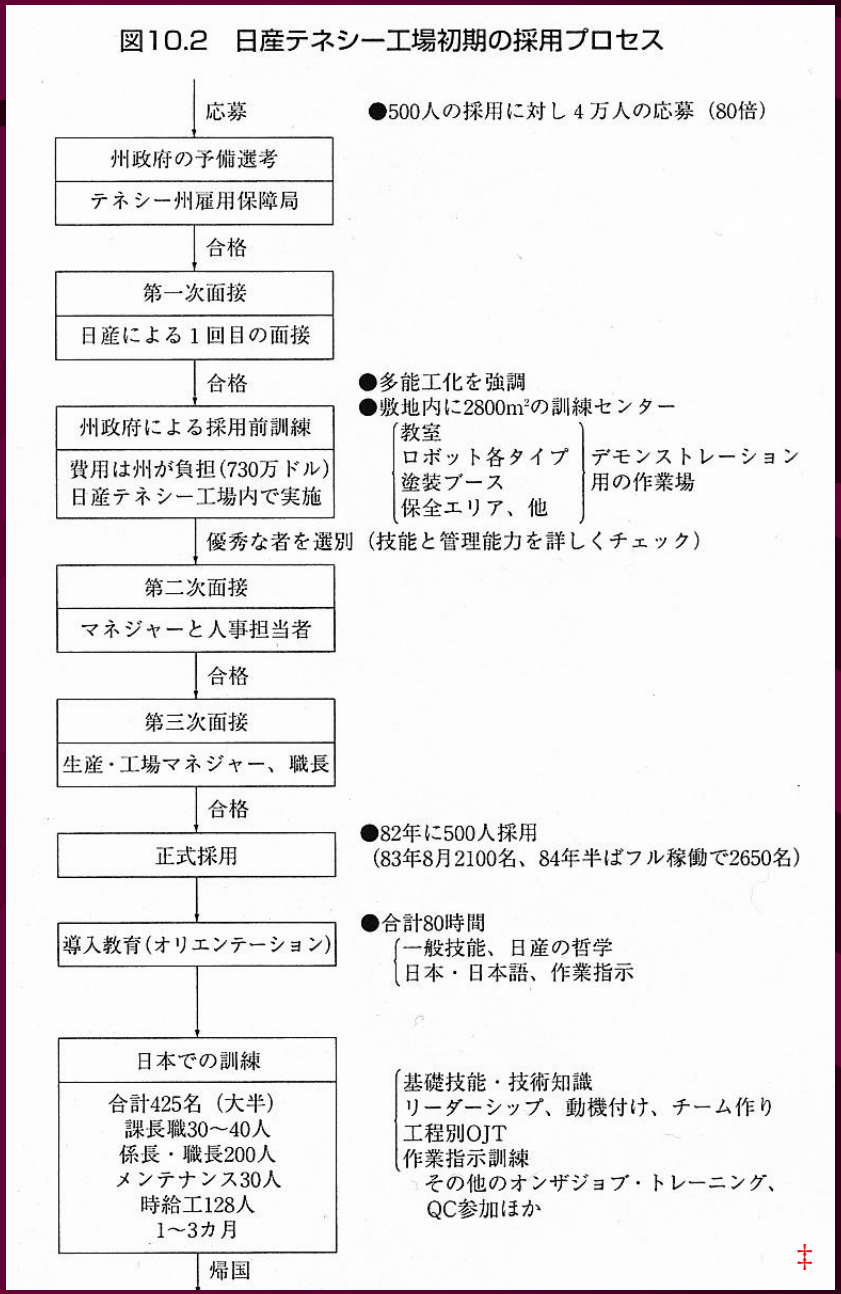
Items allowed	Items not allowed, or to be avoided
▪ name ▪ address ▪ telephone ▪ social security number ▪ academic history (only if related to job content) ▪ job history, wage in former job, period on job, reason for quit ▪ job interested (not interested), reason ▪ job of most interest	▪ gender ▪ age and date of birth ▪ foreign language capability (to reveal country of origin, race) ▪ name of parents (ditto) ▪ clubs/organizations belonged ▪ marital status (unrelated to capability) ▪ number of children (ditto) ▪ picture (to reveal gender, race) ▪ height, weight (unrelated to job) ▪ birth place (to reveal race, country of origin) ▪ colors of eyes and hair

‡

"Nebins T.J. 'All of personal management of advancement toward America enterprise' JAPAN EXTERNAL TRADE ORGANIZATION
Reference: Takahiro Fujimoto 'Introduction to Production Mmanagement' Nihon Keizai Shimbun, Inc. 2001 (Ⅱ p15)"

Early Recruit Process of Japanese-Affiliated Auto Maker in Local US Factory

Generous support of local government



Author making (reference: 'Conference Board')

Reference: Takahiro Fujimoto 'Introduction to Production Mmanagement' Nihon Keizai Shimbun, Inc. 2001 (Ⅱp17)

Assignment : In Japan ---

Planned rotation (transfer among divisions)

Among jobs of related skills

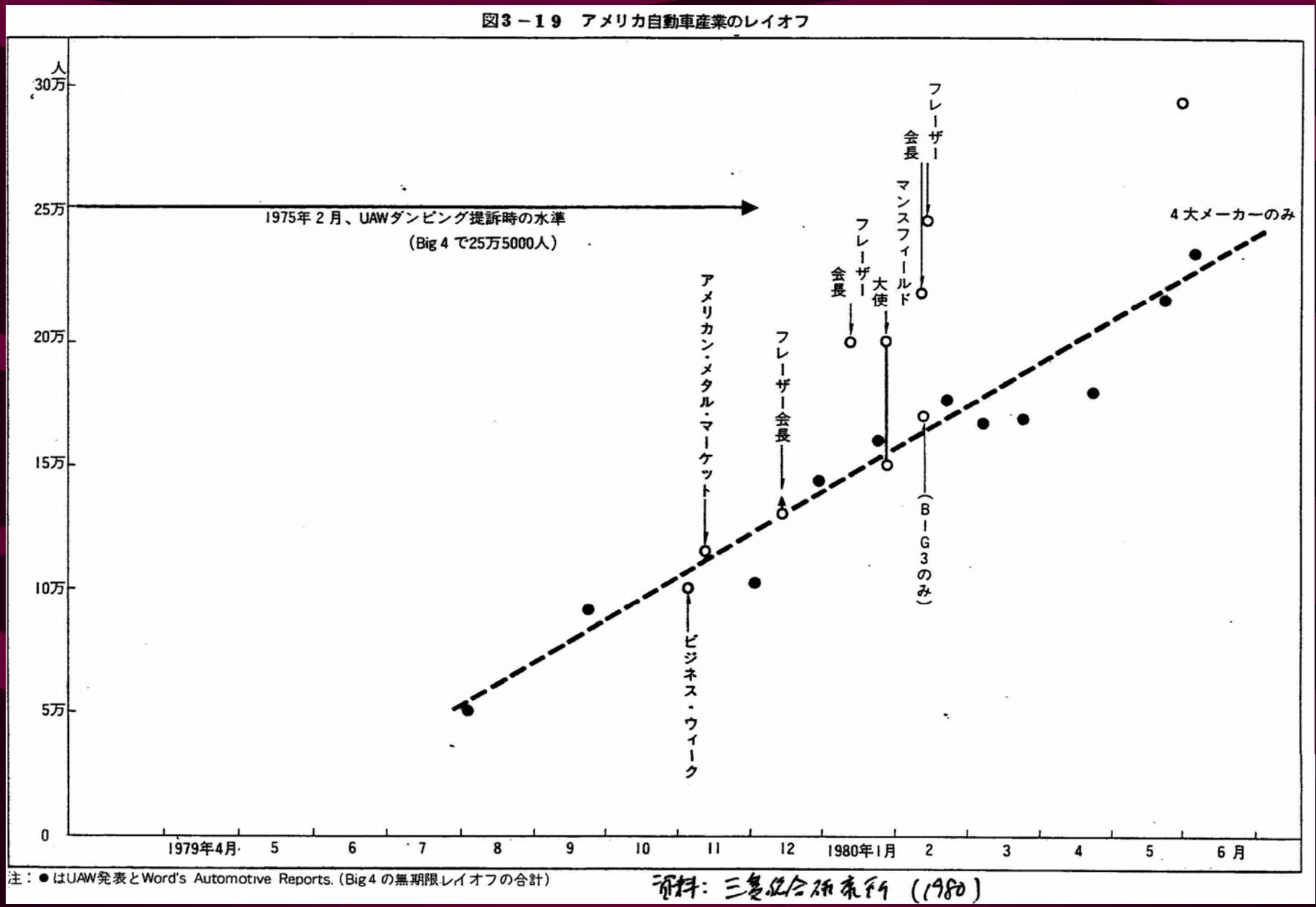
"Backup" (temporary conversion of position) to absorb fluctuation

Assignment : In America ---

Layoff (temporary dismissal) to trigger "bumping"
(unintended rotation)

Layoff and rehire

Layoff of American Auto Maker (1979 -1980)



Promotion : In Japan ---

Internal promotion system, in general
(internal selection by cumulative evaluation)

Particularly, in a work office where skill levels enhance gradually (Koike)

Promotion : In America ---

Relatively many outside recruitments

But, internal promotion becoming widespread to some extent (Koike)

(3) Recruit Quantity Management

In Japan (large manufacturing companies in the post-war era) ---

"Life-time employment" --- inaccurate wording

Correctly, "stable employment policy for regular employees with an age limit"

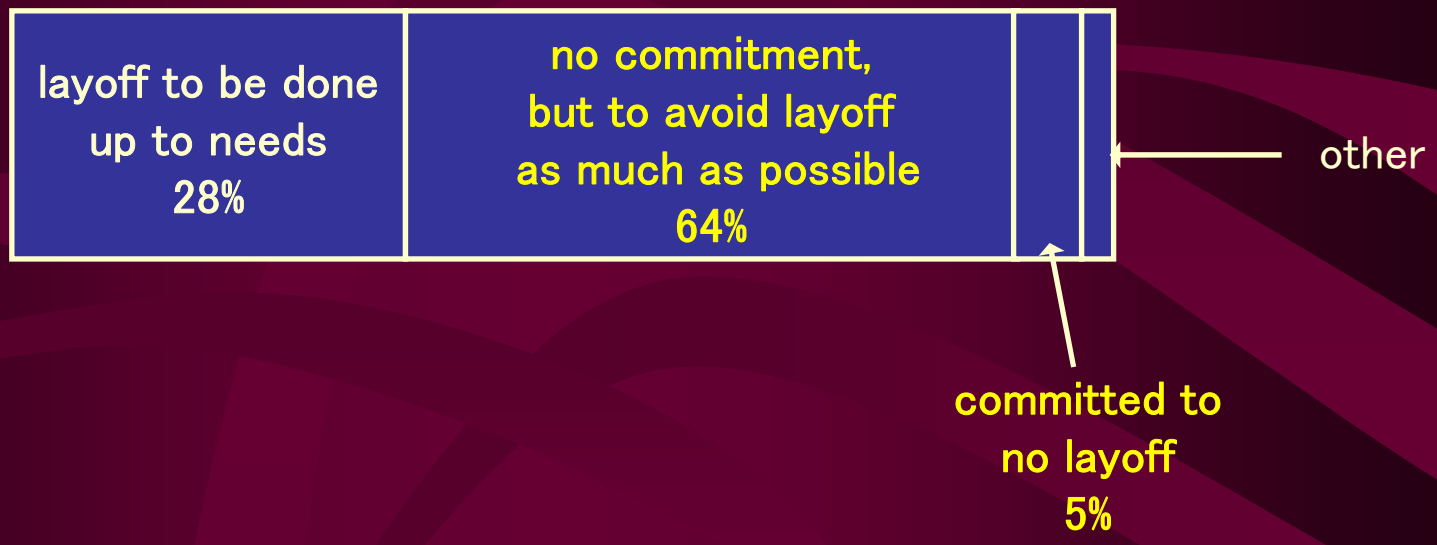
Fluctuation in production volume to be covered as much as possible
by overtime, operational reduction, temporary workers, subcontracting,
natural attrition, temporary transfer, employment transfer,
voluntary retirement, etc

In America (traditional mass production system) ---

Layoff based on a clear-cut rule

Seniority rule (service years)

Layoff Policy of Japanese-Affiliated Maker in Local US Factory (1980)



Reference: Nikko Research Center, a survey run in 1980

(4) Training/Education Management

In Japan (large manufacturing companies in the post-war era) ---

Foster multi-skilled workers
(expertise-skill mastery system of Toyota, etc.)

Combination of "OJT" and "off JT"

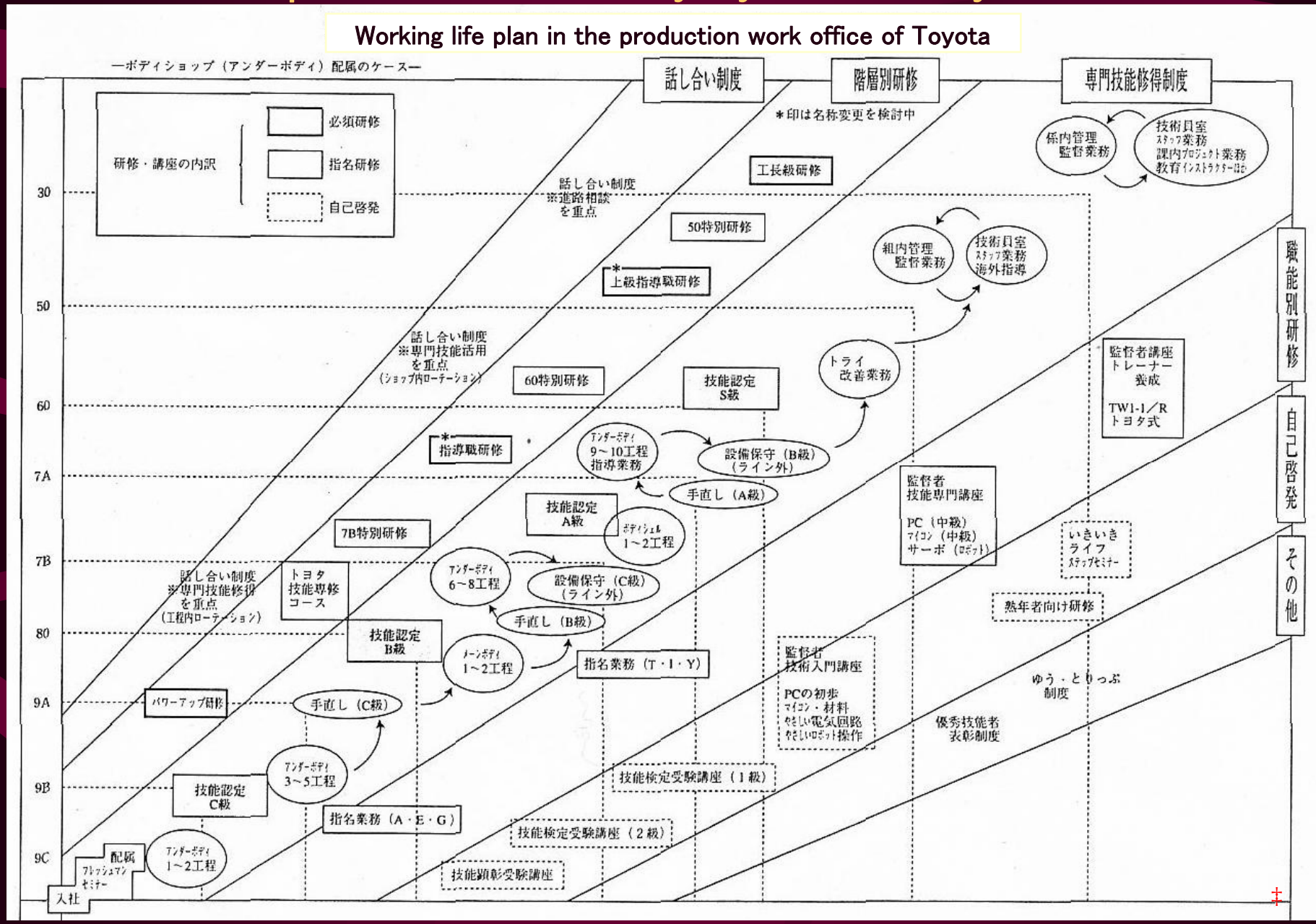
In America (traditional mass production system)

Single-skill workers

Detailed job classification

Expertise-Skill Mastery System of Toyota

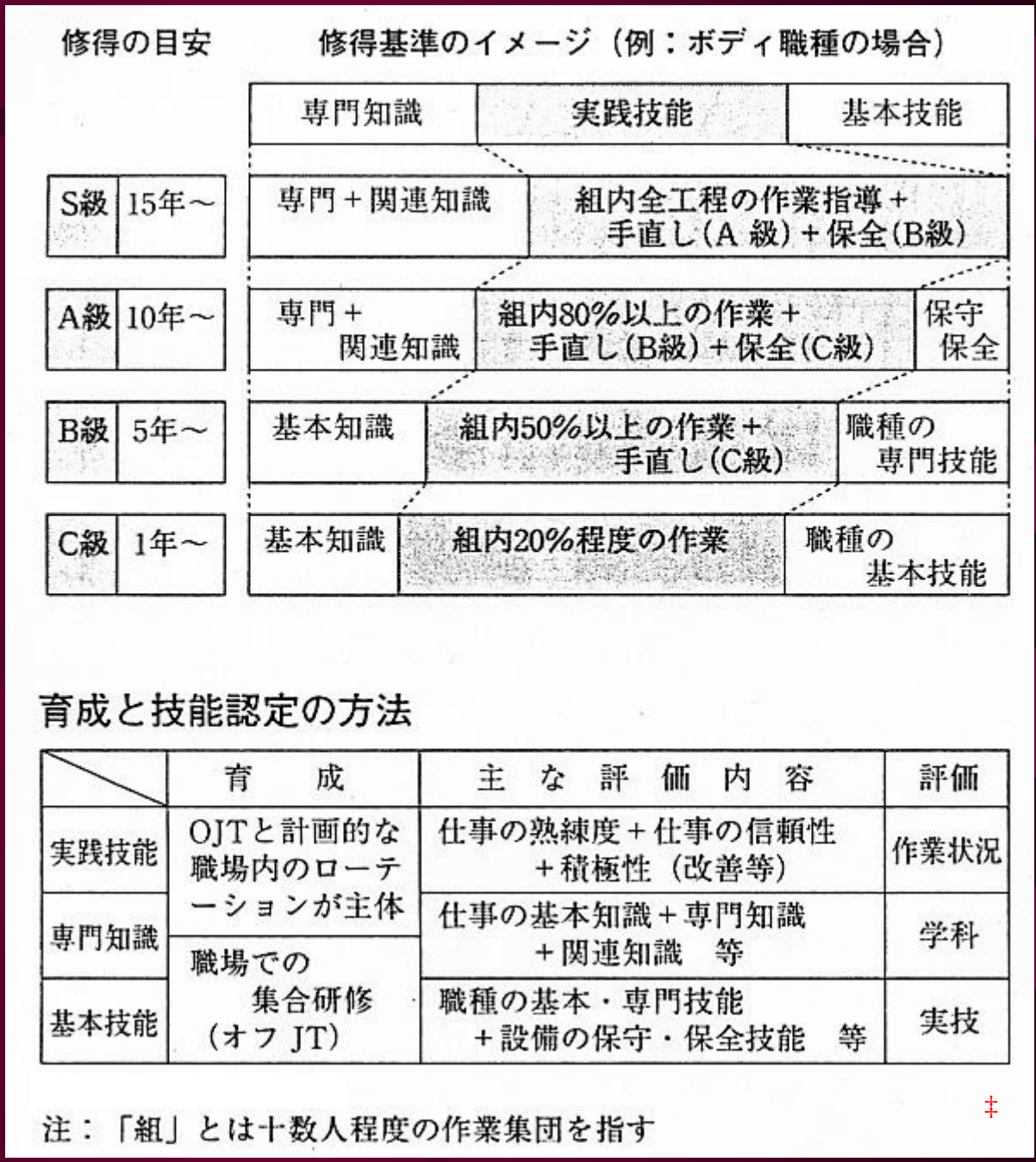
Working life plan in the production work office of Toyota



TOYOTA " Nihon Keizai Shimbun, Inc.

Reference: Takahiro Fujimoto 'Introduction to Production Mmanagement' Nihon Keizai Shimbun, Inc. 2001 (Ⅱp23)

Expertise-Skill Mastery System of Toyota



修得の目安　　修得基準のイメージ（例：ボディ職種の場合）

		専門知識	実践技能	基本技能
S級	15年～	専門＋関連知識	組内全工程の作業指導＋手直し（A級）＋保全（B級）	
A級	10年～	専門＋関連知識	組内80%以上の作業＋手直し（B級）＋保全（C級）	保守保全
B級	5年～	基本知識	組内50%以上の作業＋手直し（C級）	職種の専門技能
C級	1年～	基本知識	組内20%程度の作業	職種の基本技能

育成と技能認定の方法

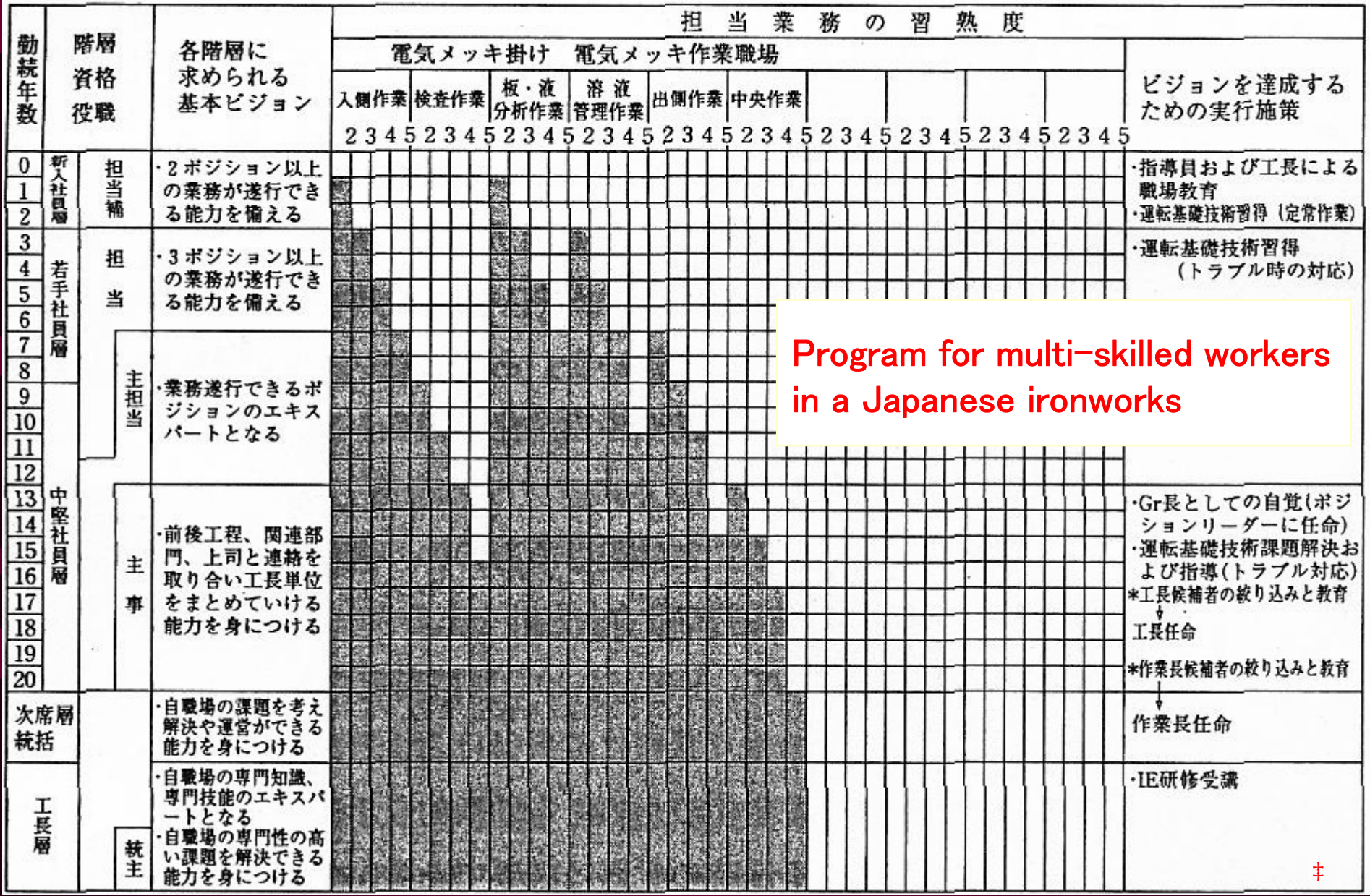
	育　成	主な評価内容	評価
実践技能	OJTと計画的な職場内のローテーションが主体	仕事の熟練度＋仕事の信頼性＋積極性（改善等）	作業状況
専門知識	職場での集合研修（オフJT）	仕事の基本知識＋専門知識＋関連知識　等	学科
基本技能		職種の基本・専門技能＋設備の保守・保全技能　等	実技

注：「組」とは十数人程度の作業集団を指す

TOYOTA " Nihon Keizai Shimbun, Inc.

Reference: Takahiro Fujimoto 'Introduction to Production Mmanagement' Nihon Keizai Shimbun, Inc. 2001 (Ⅱp24)

Model Format of Individual Fostering Plan at Electric Gilding Work Office (X Ironworks)



Program for multi-skilled workers in a Japanese ironworks

'Labor relations and personnel training in iron and steel industry' The Japan Institute for Labour Policy and Training

Labor Training Method -- Factories of Nissan and Honda in US (1982) --

	Nissan	Honda	Comparison
Training of employee of the United States in Japan	• 425 total people (40～50 people once). Section chief class 30～40 people. Chief clerk and overman class 200 people. 30 maintenance people. 128 hourly wage workers. • period: one-three months (End by the end of 82 years) • place: the Kyushu factory (pickup truck) • method: O.J.T. Off J.T . QC participation etc.	• Total: 200 people(60 people?) (60 reshuffle class people from two-wheel factory are included.) • Period: 1～2 month(the end of 81 years ～ the autumn of 82 years) • Place: Method of Sayama factory (accord) • Method: Man-to-man O.J.T.	Nissan is larger-scale
Reshuffle	—	• 120 people are reshuffled from 2-wheel at Ohio factory section.	Only Honda
Engineer dispatch from Japan.	• 65 engineers(82 years) • Equipment installation • Trial run • Support of Tacami • e.g. stock control analyst '82.6～'83.12 • Final coating charge overman '83.2～'83.6 100 total people reside in November, '82.	• 200 person residing (November, '82). (The majority are staff of the overman class.) • American worker's O.J.T. • 40 people are scheduled to remain to the Japanese at full 84 year Cgou.	Honda is larger-scale

Training Program of Nissan Tennessee Factory (Supervisor Training)

① 選抜
(Selection)

② 80時間
オリエンテーション
(Orientation 80 hrs)

③ 訓練委託
(於　日本)
Training
assignment
in Japan

④ スーパーバイザー／技術･技能プログラム
(Supervisory / technical skills program)

⑤ リーダーシップ／チームづくり／労務意欲の促進
Leadership / Team Building / Employee Involvement

⑥ 各機械工程別訓練
(Selected machine or process specific training)

⑦ ジョブ指示訓練
(Job Instruction Training)

⑧ 第1グループの詳細な指導
次グループへの配属
(Close supervision: First Group
Double Manning
Subsequent Groups)

⑨ 訓練終了証明
(Task Certification)

‡

Author making (reference: 'Iron Age 1982.9.15')
Reference: Takahiro Fujimoto 'Introduction to Production Mmanagement' Nihon Keizai Shimbun, Inc. 2001 (Ⅱp25)

(5) Job Design --- "Design of Division of Labor"

Spread of work in charge

narrow ---- America (traditional mass production system)

rather wide --- Japan (multi-skilled workers of Toyota, etc.)

quite wide --- Volvo method (assemble one auto with two workers)

Aspect of humanization:

expansion and enrichment of jobs (socio-technical theory)

Aspect of competitiveness:

multi-skilled labor becoming focused as a competitiveness of Japanese companies has risen up to the surface

Trend of an amalgamation in recent years

(Case on Toyota: "Theory on Evolution of Production System" chapter 7)

Sequences of Analytical Approach and Design Approach

Analytical approach

① recognition of problem

↓

② collect/analyze data

↓

③ assumption and development

↓

④ experiment

↓

⑤ examination of result

↓

⑥ application of result

Design approach

① selection of design system

↓

② expand system's function

↓

③ development of system

↓

④ experiment

↓

⑤ select system

↓

⑥ introduce system

Reference: Shioka "First Step to IE"

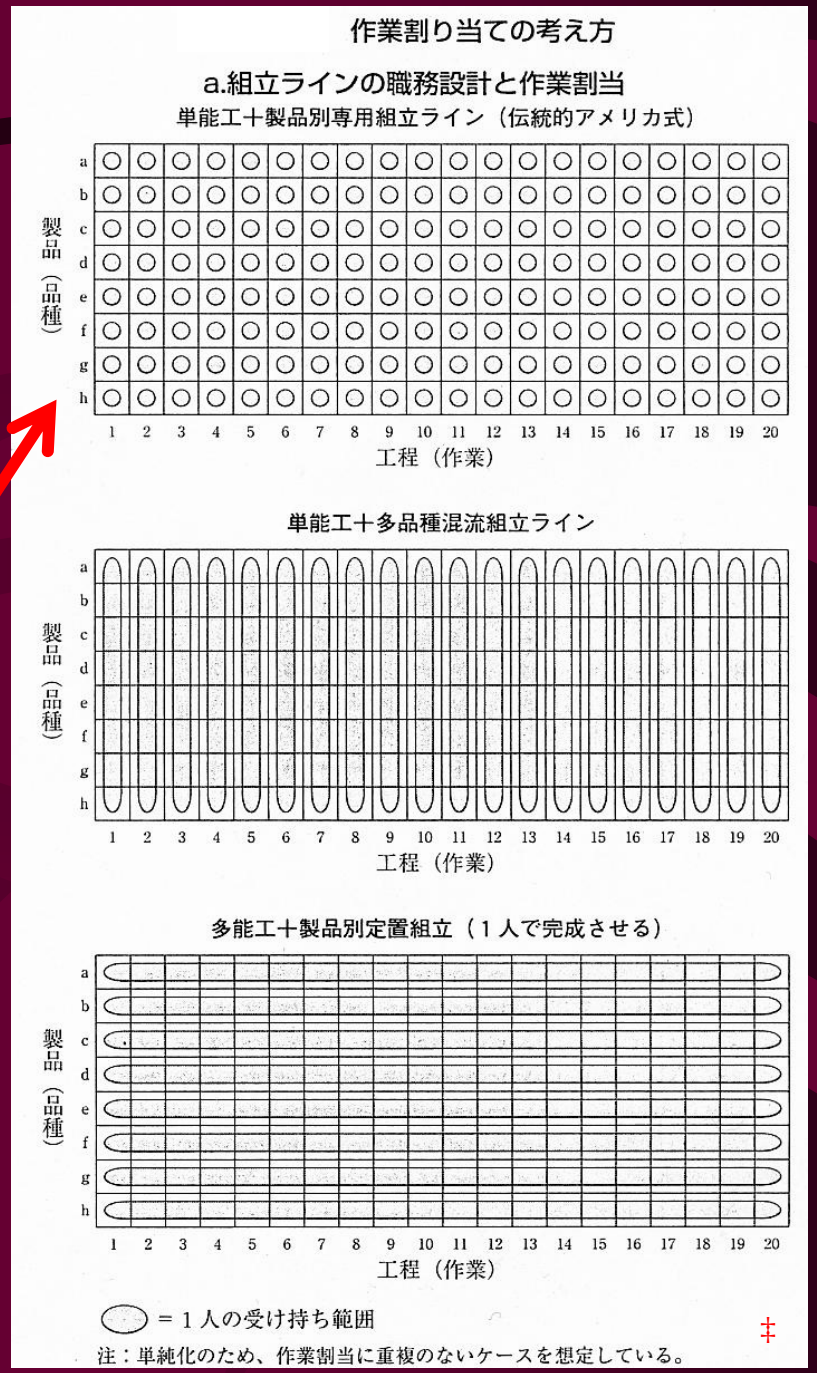
Job Design and Job Allocation in Assembly Line

crossover process? or

crossover variety? or

both?

seen in many American factories



Takahiro Fujimoto 'Introduction to Production Management'
Nihon Keizai Shimbun, Inc. 2001 (Ⅱp27 figure.10.6a)

Job Design and Job Allocation in Assembly Line

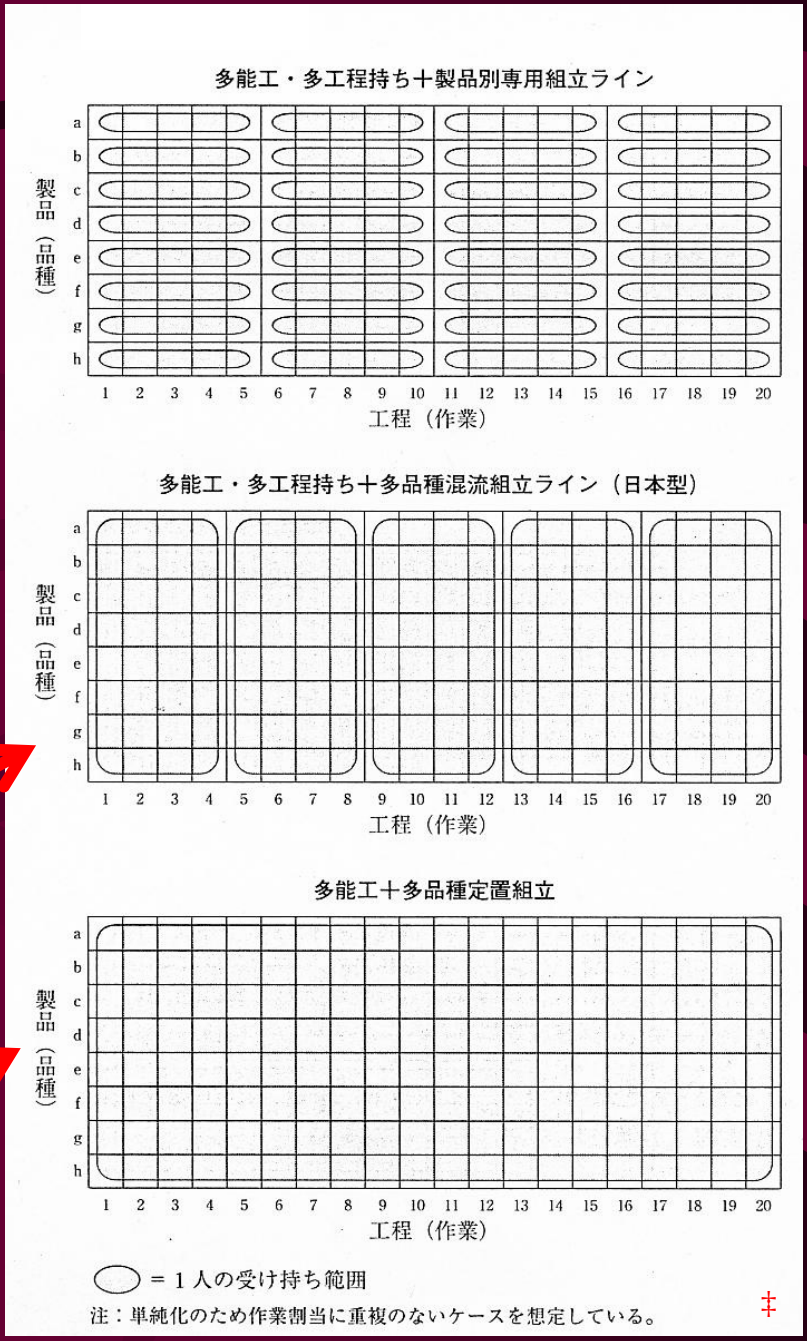
crossover process? or

crossover variety? or

both?

seen in many Japanese auto factories

Volvo system

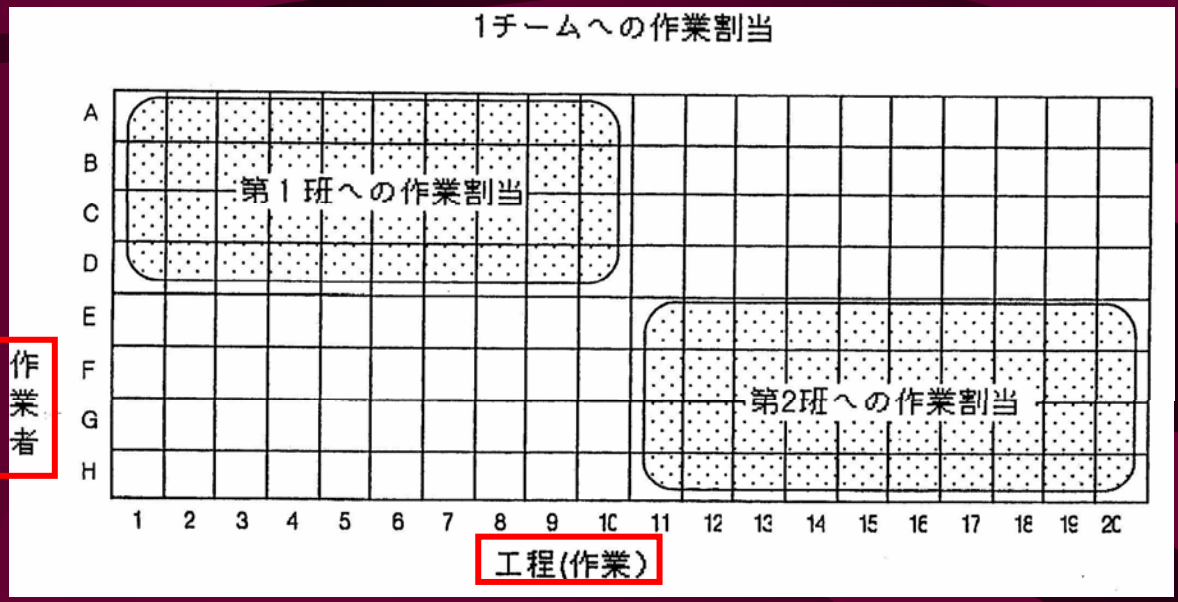


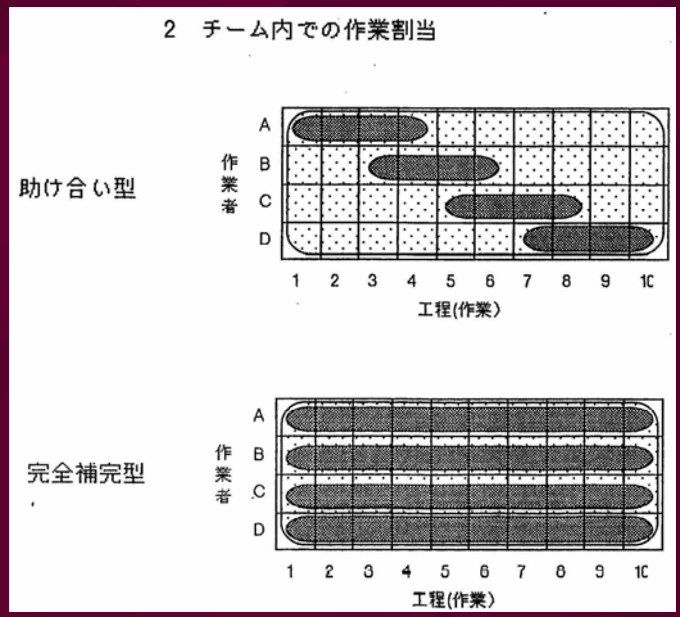
Takahiro Fujimoto 'Introduction to Production Management' Nihon Keizai Shimbun, Inc. 2001 (Ⅱ p28 figure.10.6a)

Team Work Organization and Job Allocation

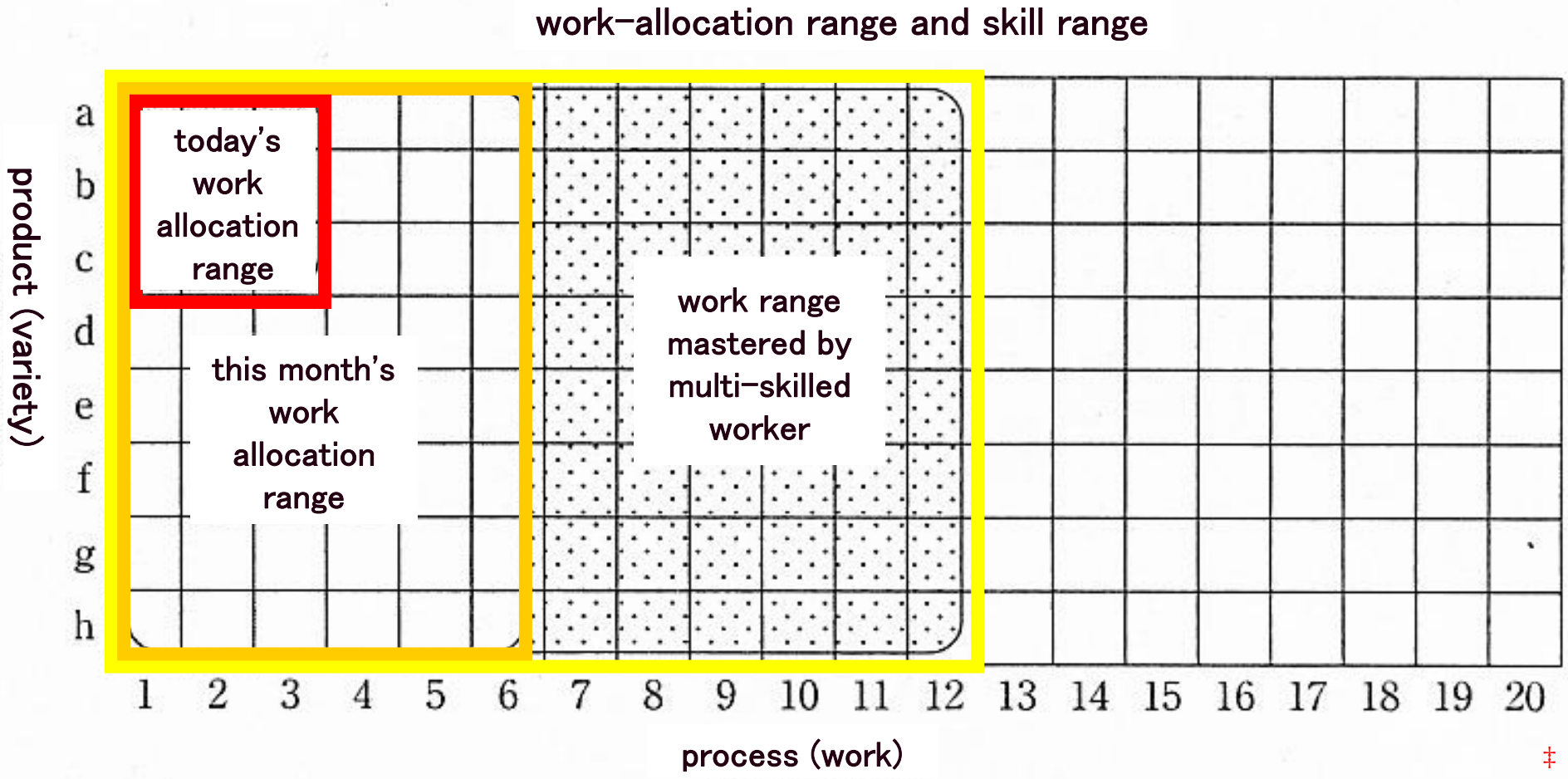
job allocation to team

job allocation within team



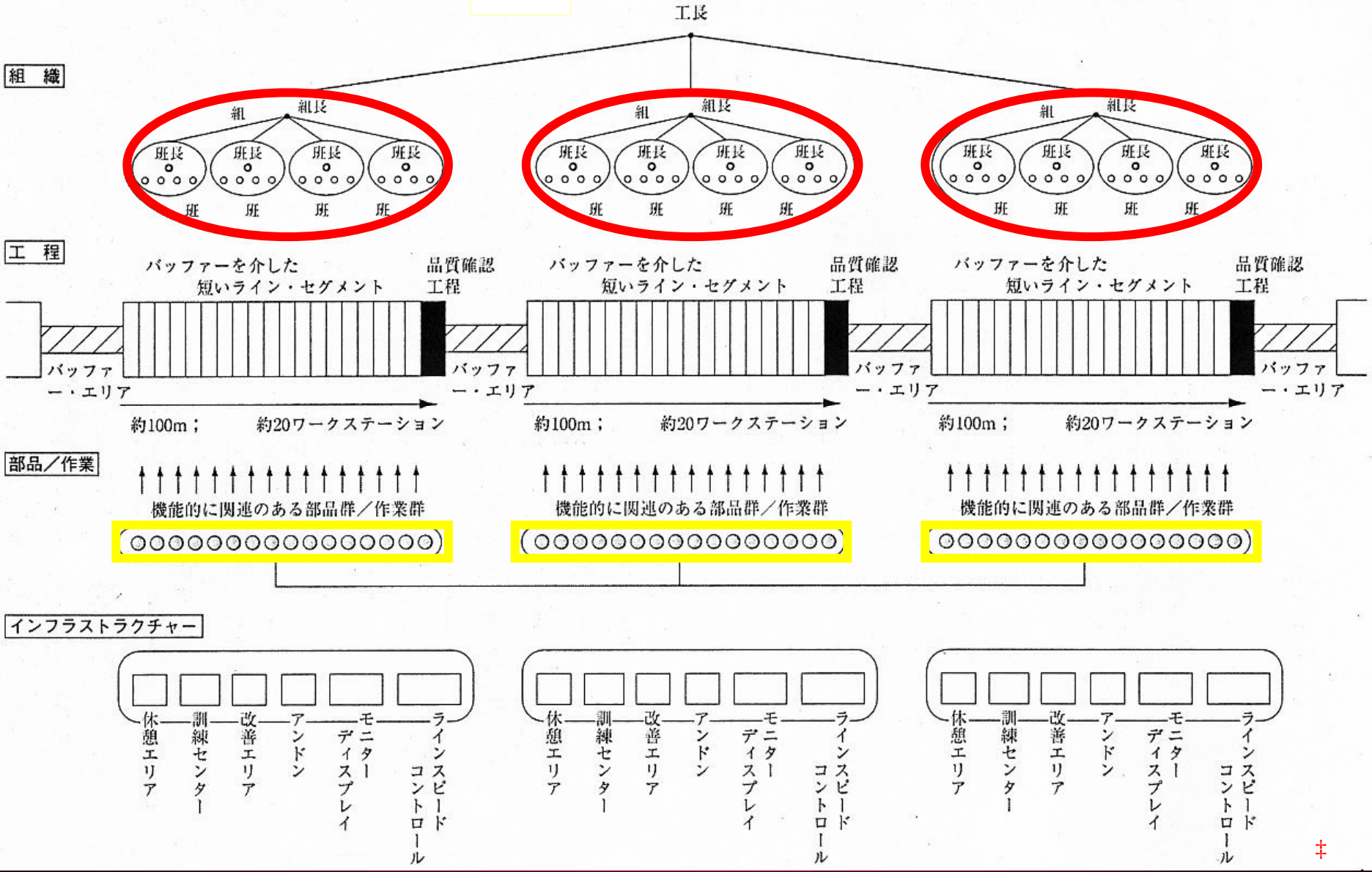


Multi-Process Handling and Multi-Skilled



Takahiro Fujimoto 'Introduction to Production Management' Nihon Keizai Shimbun, Inc. 2001 (Ⅱp29 figure.10.6b)

Concept of Self-Contained Process



Merits and Demerits of Division of Labor

	To management side	To worker side
Merits of division of labor	○ save training time and cost ○ easier recruitment ○ high productivity by simple repetitive work ○ laborer replacement possible →low wage ○ control over work flow and human-hours	○ no serious responsibility for output ○ no need for mental effort ○ job available even with low education (academic history)
Demerits of division of labor	● difficult quality control (no one assuming overall responsibility) ● hidden cost resulting from worker's complaint ● low productivity resulting from not extracting full capability of worker	● boredom ● little gratification ● no control over working pace → fatigue, distraction ● no opportunity for progress, improvement, learning ● no communication opportunity among workers ● local muscular fatigue

(6) Wage Management

--- Wage Standard Management and Wage Structure Management

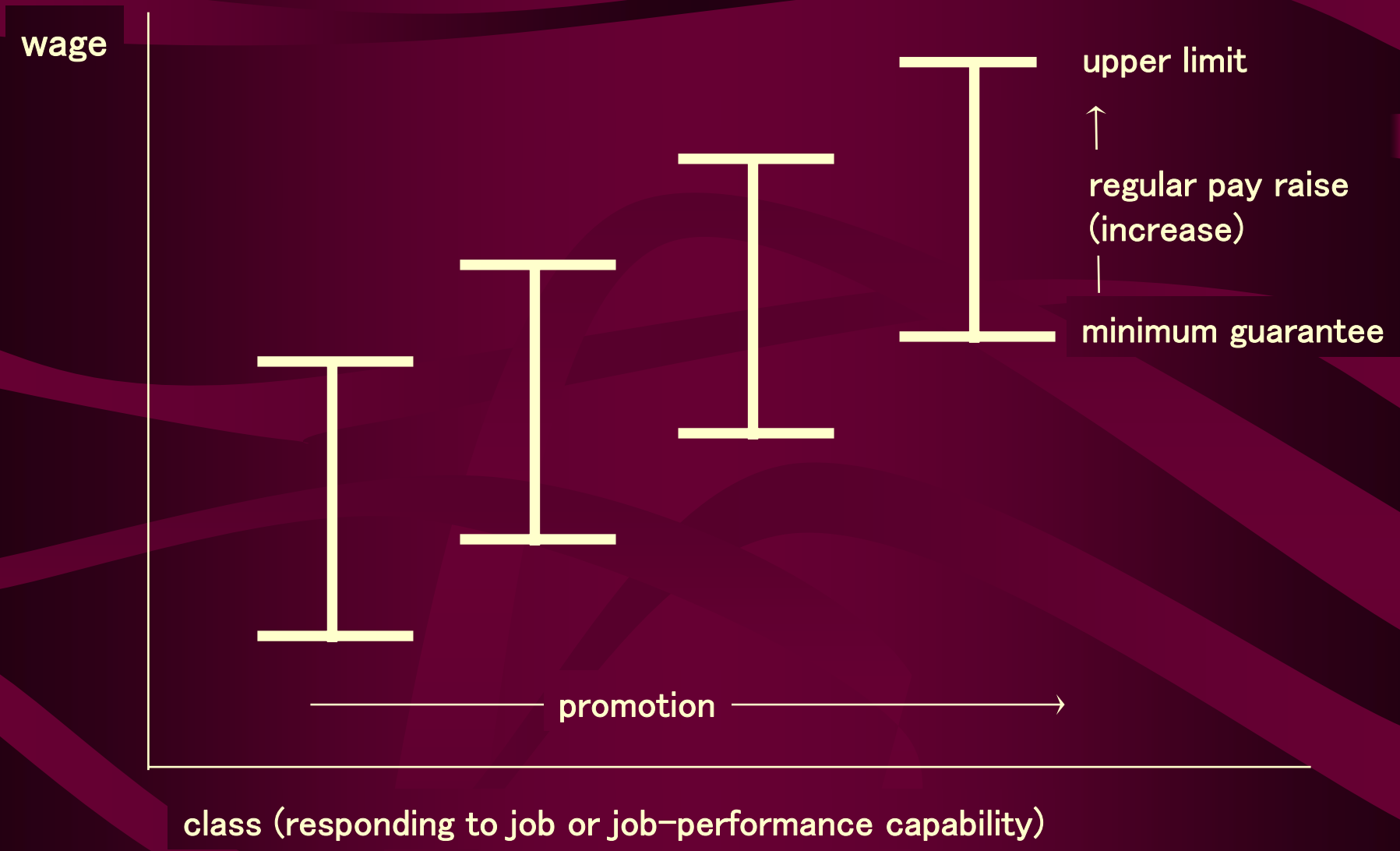
Wage structure

--- Multiple wages organized on the core of basic wage

job-based wage (job-evaluation based)
performance-based wage (ditto)
cost-of-living wage
career wage (including age-based wage)
efficiency wage (linked to productivity as performance)

Example: Toyota's Wage Structure --- total-decision wage formulated on the core of range skill-based wage and production allowance

Range Job Wage and Range Skill Wage



Note: Diagram shows an lapping model being popular in Japan, but additionally there can be a conjugation model and indirect model.

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Takahiro Fujimoto 'Introduction to Production Management' Nihon Keizai Shimbun, Inc. 2001 (Ⅱ p37 figure.10.10)

Segmented Job-Evaluation-Based Wage of US Automobile Maker (1981) [dollar / hours]

'UAW materials' Nihon Keizai Shimbun, Inc.
Reference: Takahiro Fujimoto
'Introduction to Production Mmanagement'
Nihon Keizai Shimbun, Inc. 2001 (Ⅱp39)

表10.4 組立作業者の職種区分と賃率

GMトラック・バスの例（1981年の時給、ドル/時間）

A グループリーダー	
1．エアコンテストおよび調整	10.05
2．バス組立	9.92
3．バス修理	10.03
4．バスアップフィット	9.90
5．電気関係アセンブリー	9.83
6．電気関係故障修理	10.03
7．電気関係故障修理（コーチ塗装後）	10.06
8．エンジンアセンブリー	9.79
9．フェンダー	10.06
10．フロント・アクスルアセンブリー	9.79
11．リノリウム切断および加工	9.99
12．メタル最終仕上げ	10.06
13．みがき・つや出し	10.19
14．ハング溶接工	9.99
15．タンク	10.06
16．型板作成（トラック用フレーム）	10.51
17．型板作成（配管）	12.00
18．トラックアセンブリー	9.79
19．トラックボディアセンブリー	9.99
20．トラックフレームアセンブリー	9.87
21．トラックフレームレイアウト	10.24
22．トラック修理	10.03
23．アーク溶接（アセチレン）	10.06
24．溶接（構造用アルミ）	10.17

B 作業者	
1．エアコン設備のテストおよび調整	9.90
2．エアーリベット工	9.66
3．エアーライン、ヒーターパイプ、コントロールロット取り付け	9.66
4．一般組立工	9.63
5．ガソリン・タンク組立	9.73
6．アクスル、トランスミッションおよびフレーム組立	9.79
7．ジャストのバランス調整	9.73
8．ボディの移動	9.45
9．バス組立（塗装前）	9.66
10．配線関係（バス）	9.66
11．レザー切断	9.79
12．ボディ修正	9.90
13．ボディ修正（塗装後）	10.26
14．ドア調整—バス	9.83
15．ドア調整—トラック	9.79
16．ドア移動—バス	9.79
17．ドア移動—トラック	9.79
18．ラバー取り付け	9.73
19．電気関係故障修理	9.90
20．電気関係故障修理（バス塗装後）	9.90
21．排気ガスコントロールシステムのチェックおよび調整	9.90
22．ガラス繊維加工	9.90
23．フレーム材切断	9.75
24．配管加工	9.73
25．トラック用フレームのレイアウトおよび穴あけ（特殊）	10.05
26．一般トラックフレームレイアウト	10.05
27．特殊フレームのレイアウト	10.05
28．配線関係のレイアウト	9.90
29．リノリウム切断および加工	9.79
30．シャフト機械加工	9.63
31．ボディ修理—RTS	10.41
32．ボディ修理—トラック	10.41
33．メカニック	9.90
34．ハンダ溶工修理工	9.90
35．メタル修正および仕上げ	9.90
36．タンク酸水洗浄	9.63
37．亜鉛メッキ工	9.63
38．亜鉛メッキ技術工	9.99
39．仕上げおよびつや出し	9.99
40．バスボディの修理（塗装前）	9.73
41．バスボディの修理（塗装後）	9.99
42．修理—最終ライン	9.90
43．エンジン修理	9.90
44．トラックボディのリベット打ち	9.66
45．アライメント調整	9.63
46．縫いつけ機のオペレータ	9.63
47．シートメタルの組立工	9.63
48．エアーライン・ヒーターパイプの溶接	9.79
49．一般溶接工	9.79
50．フォーム成型—商用車	9.79
51．型板作成（トラック用フレーム）	10.31
52．型板作成（配管）	11.61
53．リフトのオペレータ	9.69
54．切断工—レイアウト	11.61
55．切断工—シート	9.79
56．トラック組立（特殊）	9.90
57．水道—電気など工場施設の整備	9.79
58．水もれチェックおよび修理	9.90
59．アルミ溶接	9.90
60．アーク溶接またはアセチレン溶接	9.90
61．自動アーク溶接	9.90
62．バット溶接	9.63
63．特殊溶接（バス）	9.99
64．溶接機セットアップ	9.79
65．ヘリアーク溶接	9.90
66．シーム溶接	9.73
67．スポット溶接	9.63
68．アルミ構造溶接	9.99
69．ガソリンタンク溶接	9.99
70．シートのテストおよび調整	9.90

出所：UAW資料

Wage Standard Management:

comparison of labor cost of Japan-U.S. automobile makers (1981)

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due to copyright restrictions

'Nikkan Jidosha Shinbun' NIKKAN JIDOSHA SHIMBUN 1981.11.13

(7) Working Condition Management

(i) working time, recess time, work structure

time reduction problem

from day-night 2 shifts to sequential 2 shifts (Toyota)

(ii) job safety

(iii) work environment, work fatigue, work position

measure on 3 K work site

Transition of Annual Labor Hours in Confederation of Japan Automobile Workers' Union

	'91	'92	'93	'94	'95	'96
Total working hours	2,237	2,154	2,102	2,106	2,099	2,121
Scheduled working hours	1,999	1,957	1,968	1,964	1,962	1,956
Overtime working hours	306	239	202	205	204	224
Annual leave days	6.82	7.18	7.25	7.51	7.84	7.49

'Time Confederation of Japan Automobile Workers' Unions 64 central committee bill book' Japan Automobile Workers' Unions
Reference: Takahiro Fujimoto 'Introduction to Production Mmanagement' Nihon Keizai Shimbun, Inc. 2001 (Ⅱp43)"

(8) Motivation/Communication Management

Spontaneous motivation,

In particular, communication is the pillar of personnel/labor management.

small group activity, suggestion system,
labor-management council, social gathering
company gazette, morning meeting, executive's patrol
periodic interview, employee opinion research, counselor
facility sharing, recreation, inter-company group

" Voluntary Activities" in Toyota

3．自 主 活 動

自主活動の場も，次表の通り非常にたくさんあり，それぞれが活発に活動しています。
これらは単に参加者の能力向上だけではなく職場のモラール向上や暖かい人間関係づくりにも大きな成果をあげています。

（平成元年１２月現在）

項　　目		内　　容
Quality circle activity		・参加人員　３７，５００人　・サークル数　６，８００ ・平成元年度完了テーマ数　２５，６００件
Inventiveness proposal system		６３年提案件数　１９７万件（一人当たり　３５件） （採用率……９７％）
人間関係諸活動	In-house group	＜職制会＞　部長会　課長会　係長会　工長会　組長会　班長会 ＜豊八会＞

豊養会	トヨタ工業高等学園卒	豊栄会	自衛隊退職者
豊生会	高　卒	整豊会	自動車整備学校卒
豊進会	大　卒	豊泉会	高専卒
豊隆会	登用社員	豊輝会	短大卒

人間関係諸活動	F＆H　運　動	Fresh & Harmony の略で，心と心のふれあいをはかる運動
	明るい寮づくり運動	５６寮　１６，４００人
	トヨタクラブ活動	・運動部会…３６部　・女子部会……工場別・職場別 ・教養部会…４３クラブ　・職場ﾚｸﾘｴｰｼｮﾝ部会…工場別・職場別
自主的研究団体	ﾄﾖﾀﾏﾈｼﾞﾒﾝﾄ 研究会	会　員　１１，０００人
	トヨタ技術会	会　員　２８，５００人
人材開発部・国際人事部の援助活動		・語学講座　・社内英語検定制度　・通信教育 ・技能検定講習　・自己啓発講座

Measures for Morale Enhancement in Japanese-Affiliated Factories Advanced to USA (1980 appro.)

Execution rate	Periodic promotion	Company- born education	Bonus	Company-born recreation	Periodic social gathering	Objective management	Suggestion system	QC/Small group	Moral survey	Company gazette	Self assessment and interview
over 70%	●	●		●							
50 - 70%					●	●	●				
30 - 50%			●					●		●	
10 - 30%											●
0 - 10%									●		
Effectiveness: much effective: ++ rather effective: +	+	++	++	++	+	++		+		+	
Total evaluation A B C	A	A	A	A	A	A	B	B	C	B	C

Note: 21 factories surveyed

Reference: Man ability center "Management Problems of Japanese-Affiliated Overseas Companies"

(9) Factory Management Organization

Case of Toyota --- relatively flat yet

Team leader --- playing manager (abandoned now?)
Group leader/foreman (GL)
--- specialized in management, leading, improvement
Assistant manager --- union members up to this level
Section chief --- non-union member from here.
Goal for blue color worker.

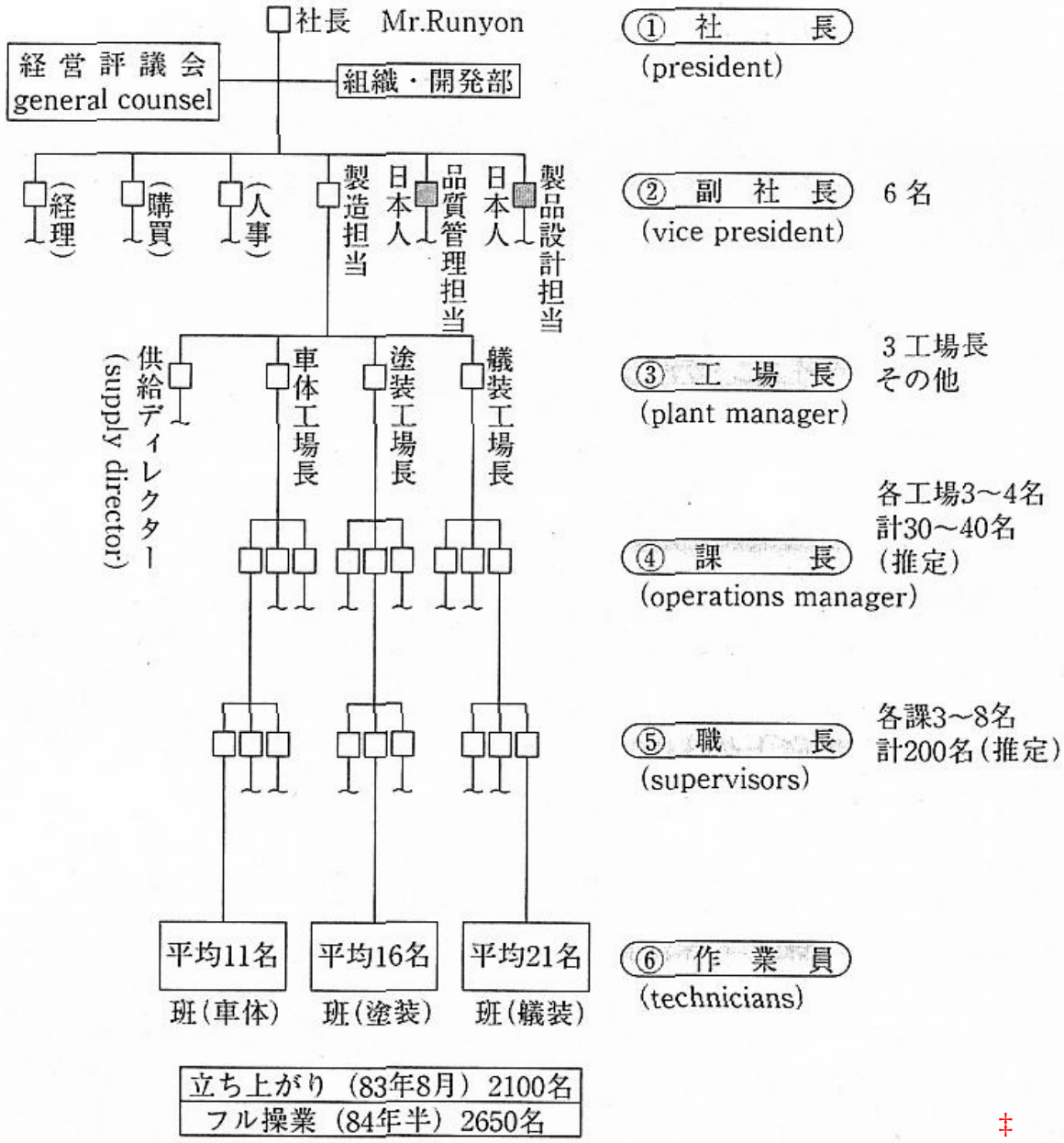
Maintenance --- separate organization
Factory engineer

Organization of Toyota's Assembly Factory (1990s)

Author making (reference: Takahiro Fujimoto 'Theory of Evolution of Production System')
Reference: Takahiro Fujimoto 'Introduction to Production Mmanagement' Nihon Keizai Shimbun, Inc. 2001 (Ⅱp51)

Organization of Local US Factory of Japanese-Affiliated Auto Maker

Management Organization of Local American Auto Factory (Nissan Tennessee Factory)



Author making (reference: 'Conference Board Report')

Reference: Takahiro Fujimoto 'Introduction to Production Mmanagement' Nihon Keizai Shimbun, Inc. 2001 (Ⅱp52)

Summary

"Application /Adaptation" Model by Professor Anpo's Group

--- Japanese-affiliated local US factories are "hybrid factories".

Separate use occasions

"Imposition" of Japanese method ?

"When you are in Rome, do as Romans do"?

Personnel Duties Management of Local US Auto Assembly Factory : Hybrid of Japan-US Method

Field	Item for Measurement	Average Score
Industrial relations management	labor union	4.2
	claims treatment	3.2
Management of recruitment/assignment/ promotion	employment policy	4.3
	job rotation	3.2
	promotion	3.2
Employment quantity management	employment security	4.9
Training/education management	training/education	3.4
Work/job design	job classification	4.8
Wage management	wage structure	2.1
Motivation/communication management	small group activity	2.7
	information-sharing	4.4
	sense of belonging	4.6
Management organization	foreperson	3.1

Tetsuo Anpo, Hiroshi Itagaki, Kunio Kamiyama, Tetsuji Kawamura, Hiroshi Kumon
'Japan Production System that lives in the United States' TOYO KEIZAI INC. 1991 (p.125)

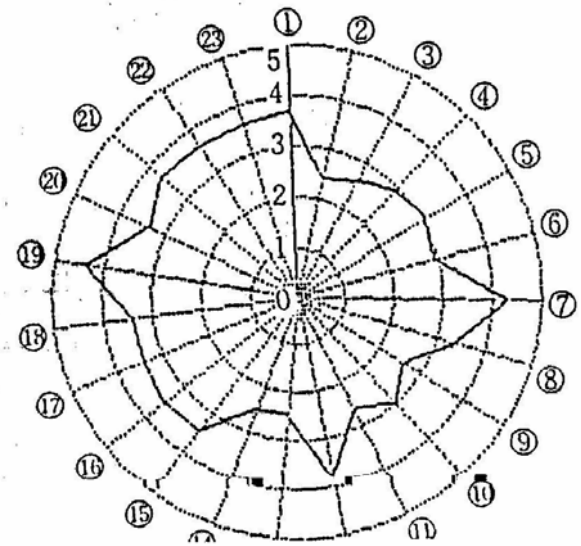
‡

"Application/Adaptation Model" of Professor Anpo's Group

表 3-A-3 適用・適応度評価一覧表

	自動車組立	自動車部品	家電	半導体	全産業
Ⅰ 作業組織とその管理運営（平均）	3.3	3.1	2.4	2.9	2.9
（1）職務区分	4.8	4.2	2.8	2.7	3.7
（2）賃金体系	2.1	2.6	2.0	3.1	2.4
（3）ジョブ・ローテーション	3.2	2.7	2.1	2.6	2.6
（4）教育・訓練	3.4	2.9	2.2	3.0	2.9
（5）昇進	3.2	3.3	2.7	3.1	3.1
（6）作業長	3.1	3.0	2.6	2.7	2.9
Ⅱ 生産管理（平均）	3.4	3.6	3.1	3.1	3.3
（7）生産設備	3.9	4.8	4.0	4.6	4.3
（8）品質管理	4.0	3.9	3.0	2.4	3.4
（9）メンテナンス	2.9	2.8	2.1	2.6	2.6
（10）操業管理	2.9	3.0	3.3	2.9	3.0
Ⅲ 部品調達（平均）	3.0	3.0	2.6	3.5	3.0
（11）ローカル・コンテント	2.3	2.7	2.0	3.7	2.7
（12）部品調達先	3.8	3.7	3.6	4.4	3.9
（13）部品調達方法	3.0	2.6	2.1	2.3	2.5
Ⅳ 参画意識（平均）	3.9	3.8	2.3	2.9	3.2
（14）小集団活動	2.7	2.9	2.2	2.4	2.5
（15）情報共有化	4.4	4.1	2.4	3.3	3.6
（16）一体感	4.6	4.4	2.1	2.9	3.5
Ⅴ 労使関係（平均）	4.2	4.1	2.7	3.5	3.6
（17）雇用政策	4.3	3.8	2.4	3.1	3.4
（18）雇用保障	4.9	3.8	2.2	2.3	3.4
（19）労働組合	4.2	5.0	3.4	5.0	4.4
（20）苦情処理	3.2	3.9	2.8	3.6	3.3
Ⅵ 親一子会社関係（平均）	3.5	4.2	3.0	3.9	3.6
（21）日本人比率	3.8	4.6	2.6	3.9	3.7
（22）現地会社の権限	3.3	4.0	3.2	4.0	3.6
（23）現地人経営者の地位	3.3	4.0	3.2	3.9	3.6
平均	3.5	3.6	2.7	3.2	3.3

図 3-A-2 項目別適用度（全工場平均）



Will the personnel system of Japanese companies change?

Depends on characters of product and industry (product's architecture, in particular)

Auto, PC software, bank --- different type

Some portion changes, some does not.

Increase in non-regular employees (worker for limited-period, dispatched employee, in-plant contract, etc.)

--- Can one be a limited-period worker and a multi-skilled worker at the same time?