



# Analyzing Labor Conditions of Pegatron and Foxconn

## Apple's Low-Cost Reality

February 2015

# Summary

## 1 Apple consistently suppresses labor costs by shifting production to cheaper manufacturers

- While Apple earns huge profits, labor costs are relatively low.
- Apple shifted production orders from Foxconn to cheaper Pegatron in order to offset Foxconn's rising labor costs.
- In 2014, Pegatron Shanghai still possessed about an 8% cost advantage over Foxconn Longhua, translating into a \$61 million annual advantage at just one of many Pegatron factories that service Apple.

## 2 Apple is unable to effectively monitor its supply chain; Pegatron still has excessive working hours

- Apple constantly claims that it is monitoring suppliers' compliance with Apple labor standards.
- Research of Pegatron workers' pay stubs reveals average of 60+ working hours per week, 52% of workers completed more than 90 hours of overtime per month, even working as many as 132 hours of overtime.
- Workers desire overtime because their base wages are too low; base wages cannot meet the local living standard.

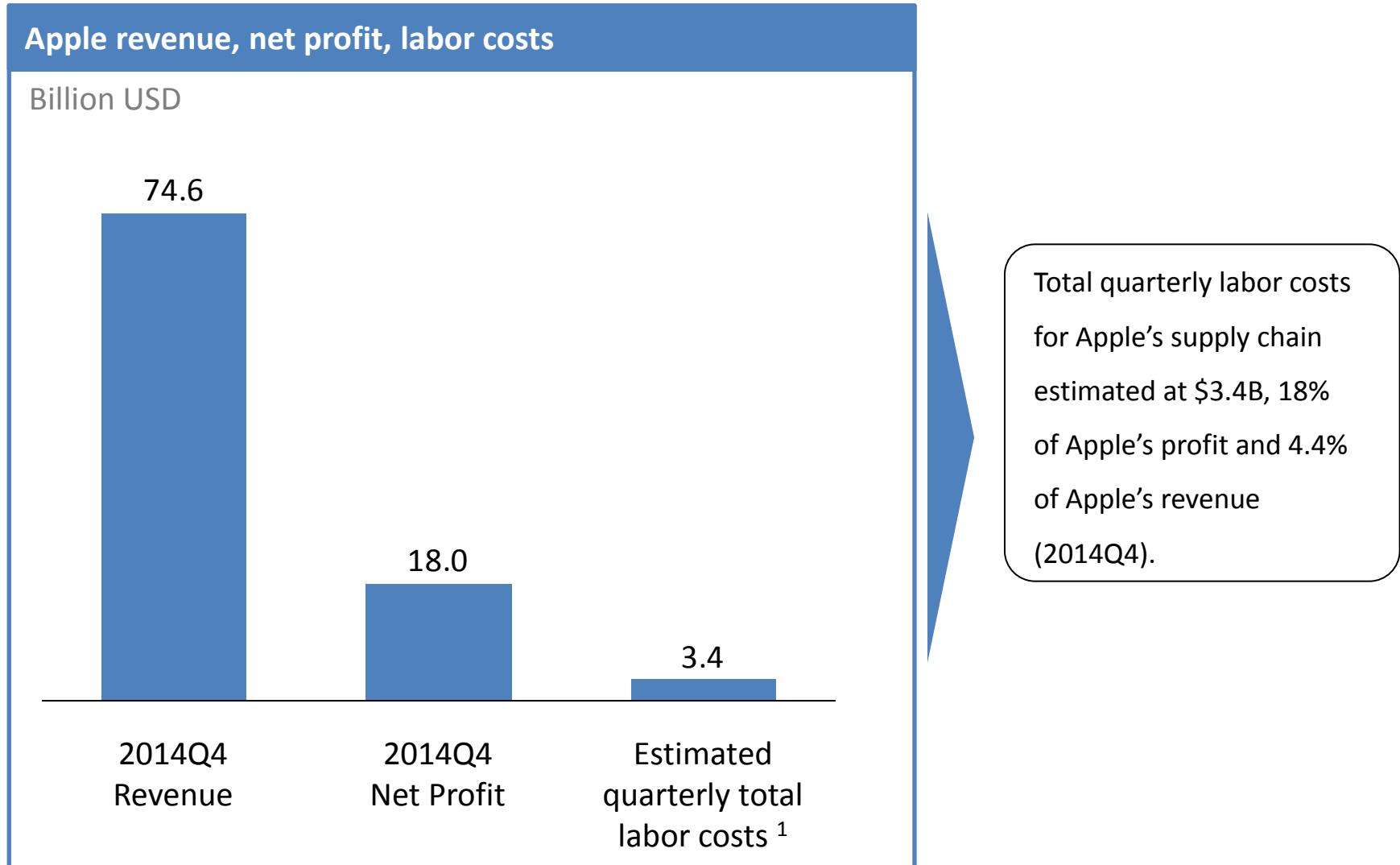
## 3 It is media attention that has improved labor conditions, not Apple's self-monitoring

- Media reports in 2010 and 2012 influenced changes in Foxconn's labor conditions.
- Apple responded to the reports by hiring a third-party organization to improve public relations, though important promises remain unfilled.
- Receiving little attention previously, Pegatron's excessive working hours reduced quickly after a 2014 BBC report.

## 4 Apple must take more responsibility for improving labor conditions

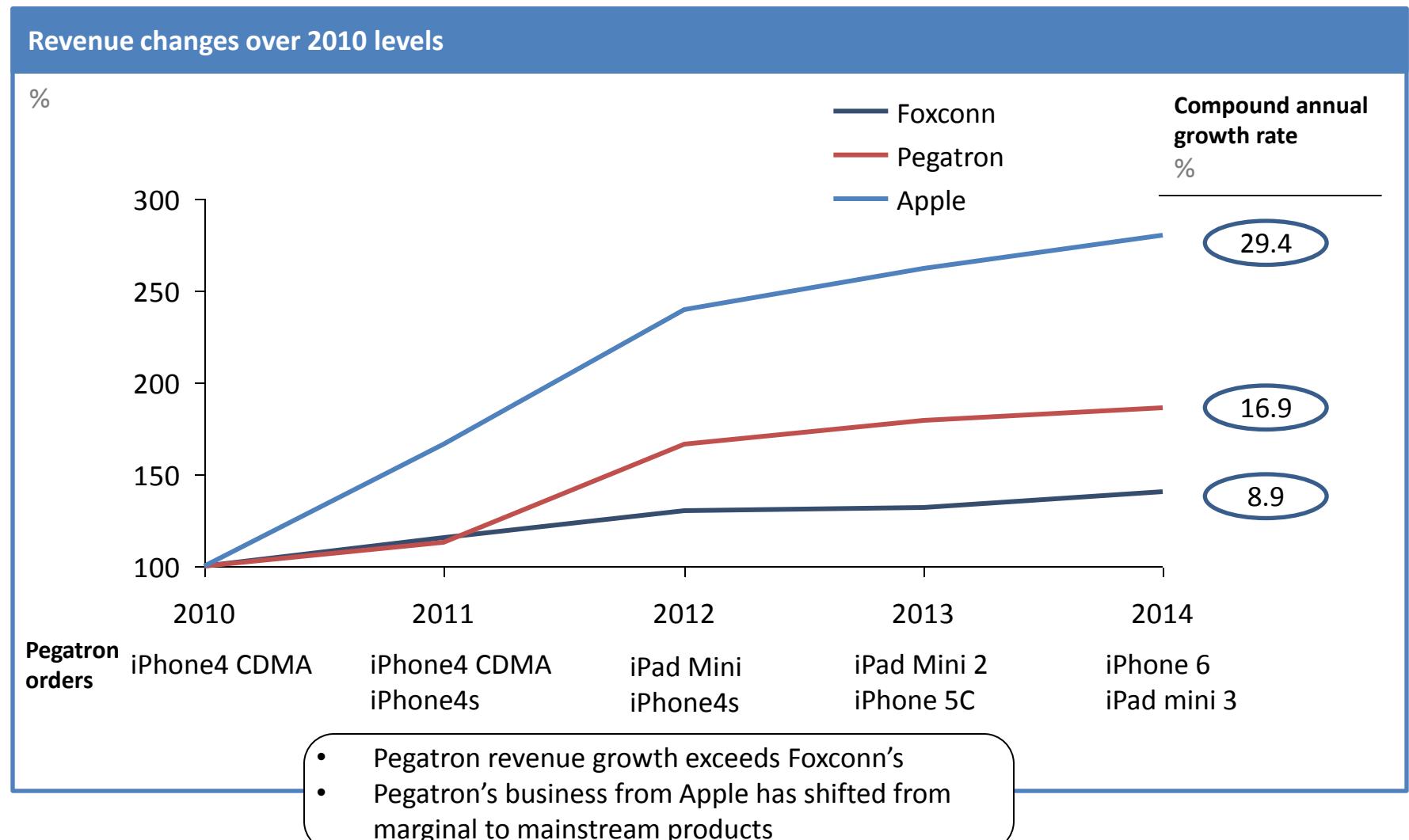
- Apple has sufficient profits to improve workers' treatment.
- Apple executives make public commitments to workers, yet poor labor conditions remain unresolved.
- Earning three-fifths of the profit in the industry, and with \$178 b in cash reserves, if Apple doesn't reform labor conditions, who will?

# 1 Labor costs estimated to be 18% of Apple profits, 4% of revenues



1. Estimate calculated using the following figures: hourly labor costs of 20 RMB, hourly workweek of 55 hours, 13 weeks per quarter, with 1.5 million workers in Apple supply chain. Apple profit data source: Apple quarterly report.

# 1 Apple introduced low-cost manufacturer Pegatron to compete with primary supplier Foxconn to reduce labor costs



Sources: Apple, Foxconn, Pegatron financial reports; Foxconn 2014Q4 data from Digitimes; Pegatron 2014Q4 data from Financial Times.

# 1 Pegatron Group Introduction

## Company profile

### Company name

- Chinese: 和硕联合科技
- English: Pegatron Corp
- Taiwan Stock Exchange: 4938

### Primary business

- Production of computers and related components

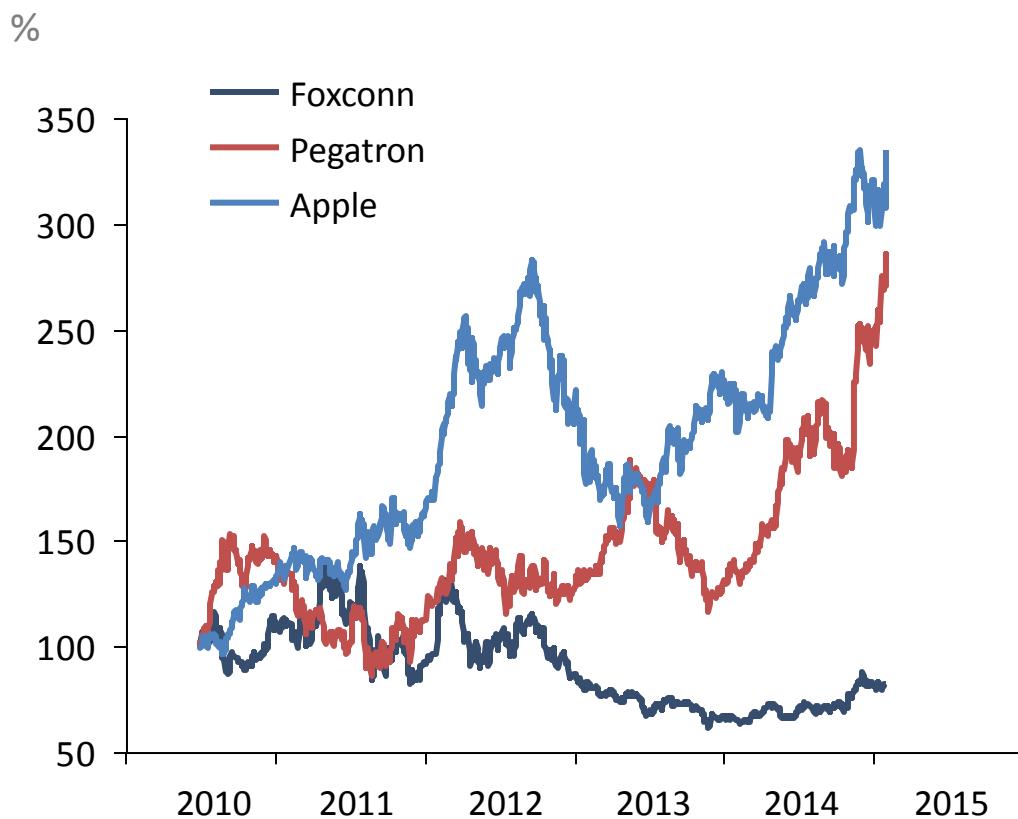
### Subsidiaries

- Shanghai: Changshuo, Riteng
- Suzhou: Mingshuo, Kaishuo, Junshuo

### Scale

- 2013 revenue: \$30 bil USD
- Shanghai Pegatron workforce: ~80,000

## Stock trends since 2010



Source: Yahoo Finance

# 1 After 2010, Foxconn's Longhua plant improved some labor conditions, leading to increased costs

## Foxconn (Longhua) suicides

- 2010: 14 Foxconn workers jumped to their deaths
- Chinese government investigates Foxconn
- Media focuses on Foxconn (Longhua)

## Some improvements at Foxconn (Longhua)

Base wages

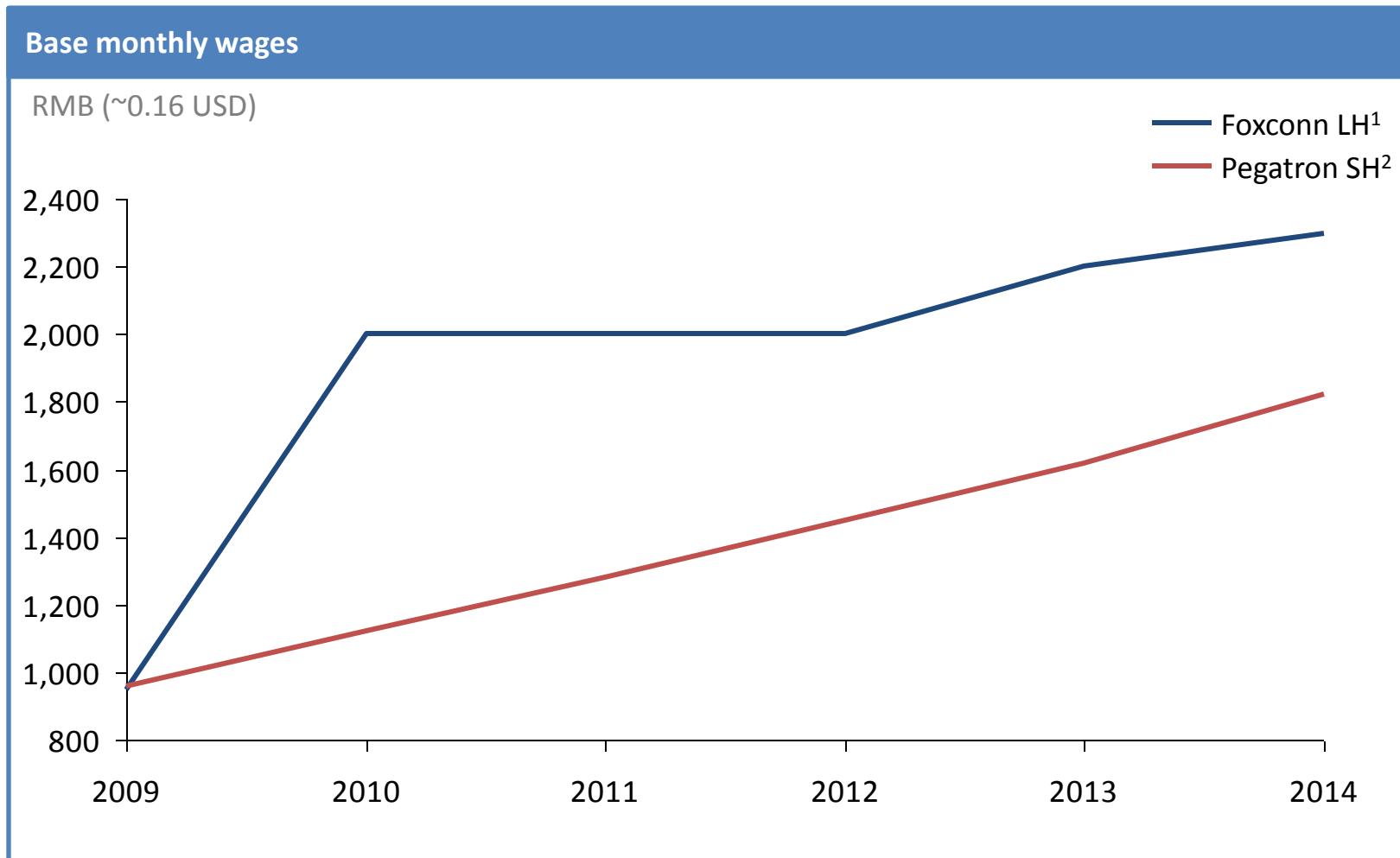
Dormitory

Overtime

### Improvements

- Monthly base wage raised from 950 RMB to 2,000 RMB (\$152-\$320)
- Dorms reduced to 8 ppl/room.
- Restricted to no more than 60 hours per week.

# 1 Pegatron uses low-cost labor to increase its share of Apple orders



Source: Foxconn and Pegatron pay stubs

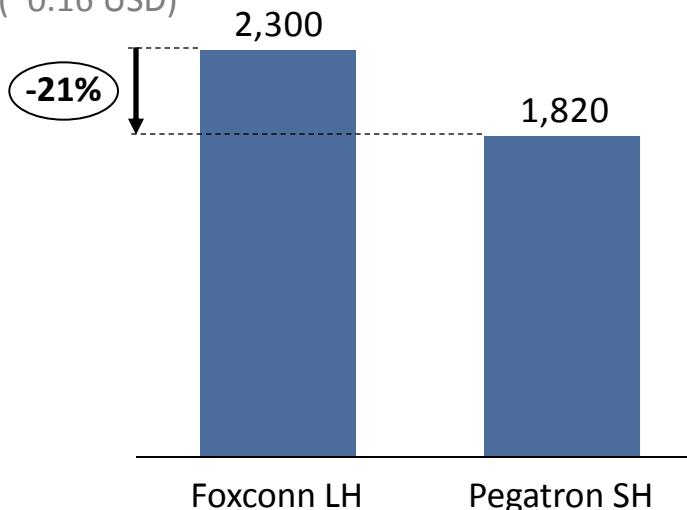
1. Foxconn Longhua in Shenzhen, Guangdong Province.
2. Pegatron Shanghai.

# 1 2014, Pegatron SH and Foxconn LH peak season hourly labor costs are similar, but Pegatron SH workers' guaranteed wages are lower

## Pegatron SH base and overtime wages less than Foxconn LH<sup>1</sup>

### Base wages

RMB (~0.16 USD)



Weekday overtime pay RMB/hour

19.83

15.69

Weekend overtime pay RMB/hr

26.43

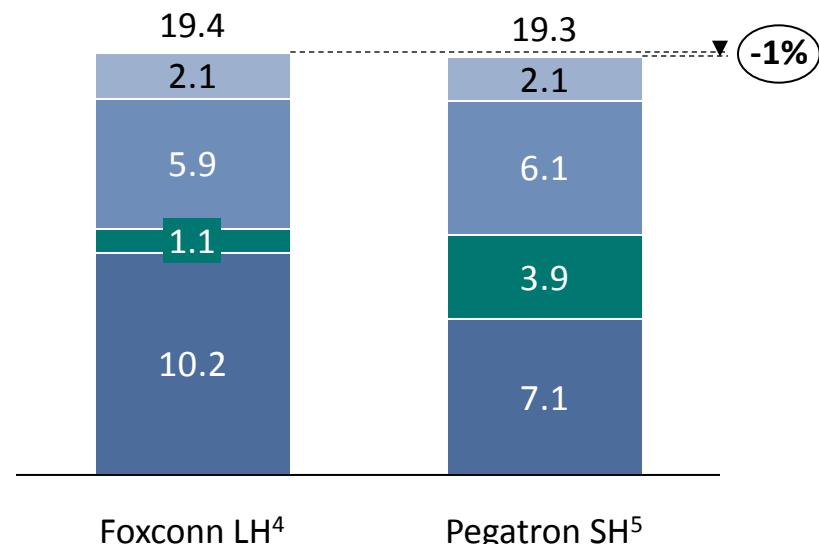
20.92

## Pegatron SH uses unguaranteed subsidies and bonuses to retain workers in high seasons

### Hourly labor costs (per worker)<sup>2</sup>

RMB/hr

Insurance<sup>6</sup>  
Overtime pay  
Bonuses, subsidies<sup>3</sup>  
Base wages



1. Based on Foxconn/Pegatron pay stubs; assumed 21.75 working days/month, 8 hrs/day; weekday and weekend overtime calculated at 1.5x and 2x base wages, respectively. 2. Incl. wages and insurance paid by companies. Pegatron workers received special subsidies for Aug-Dec peak season.

3. Incl. subsidies and bonuses but not bonuses for referring new workers into the company. 4. Foxconn (Longhua) wage data from interviews with 85 Longhua facility workers between June 2014 - Jan 2015. 5. Pegatron wage data from pay stubs collected from Pegatron workers in Jan 2015.

6. Insurance paid by company, estimated based on the amount paid by workers. For calculation details, please refer to attached Excel.

# Comparing Pegatron SH & Foxconn LH total hourly labor costs estimates

## Per Worker Hourly Labor Costs<sup>1</sup>

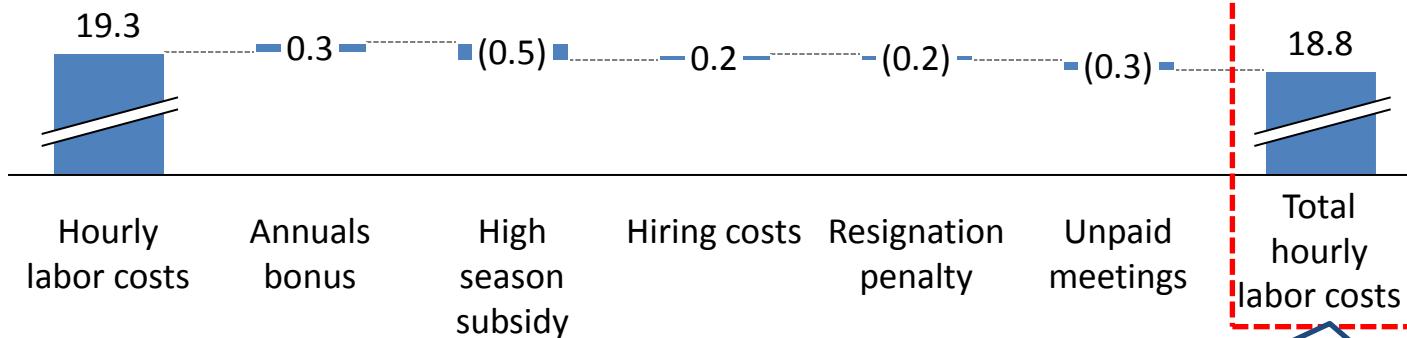
RMB (~0.16 USD)



Foxconn



Pegatron



Pegatron SH's actual hourly labor costs are 1.6 RMB (8%) per hour per worker lower than Foxconn LH.

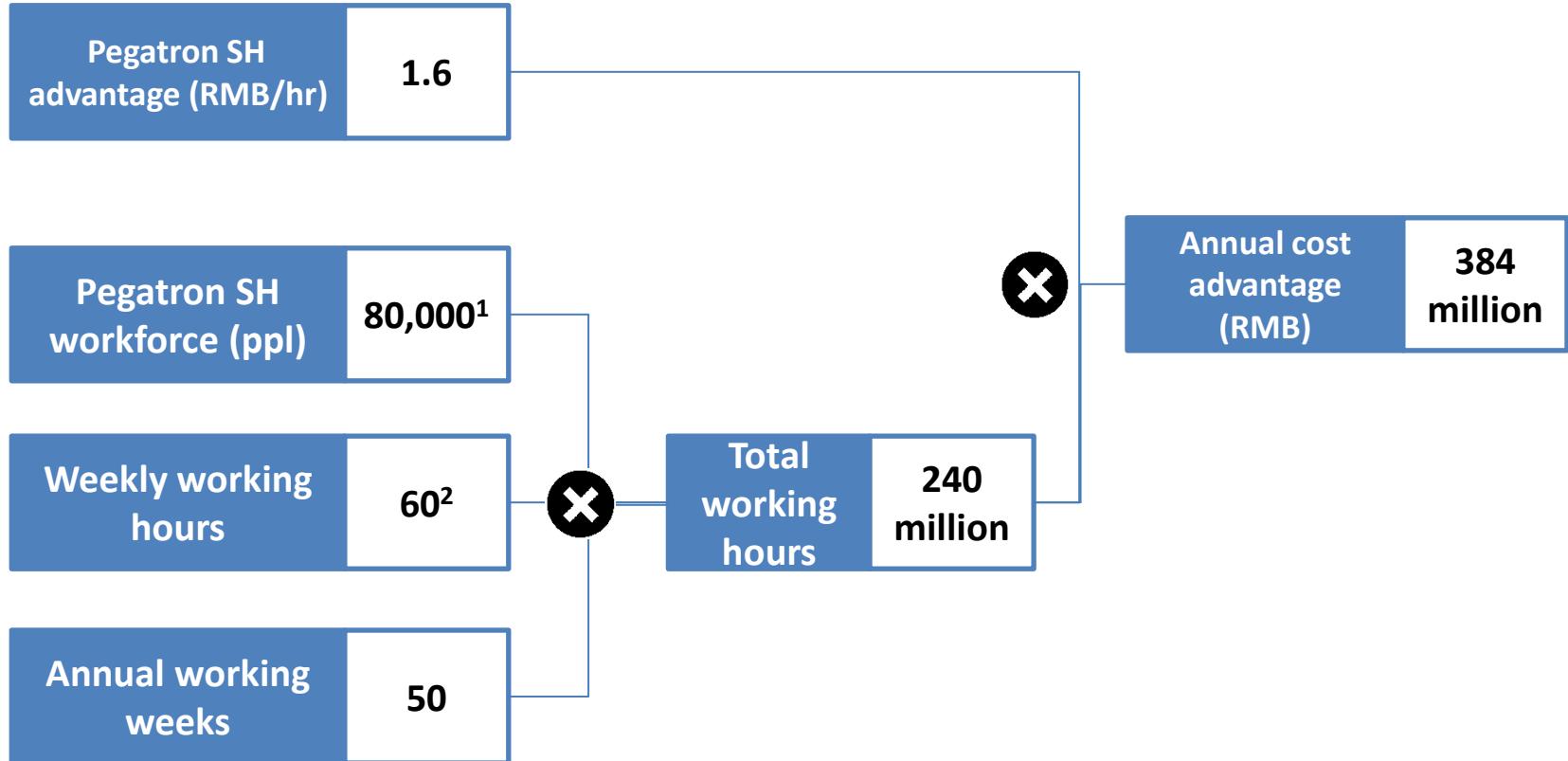
- This calculation does not include worker living costs or unpaid insurance of Foxconn LH and Pegatron SH. Foxconn LH dorms accommodate 8 people/room, while Pegatron SH's dorms are 10-12 to a room. See next page for details about calculation methods.

# 1 Composition of hourly pay estimates

	Pegatron SH	Foxconn LH
Annual bonus	<p><b>Assumptions</b></p> <ul style="list-style-type: none"> <li>Distributed at year-end based on months worked.</li> <li>1,000-2,000 RMB for workers with 1+ year at firm.</li> <li>100 RMB per month for those less than 1 year.</li> <li>Working months calculated based on turnover rate<sup>2</sup></li> </ul>	<p><b>Labor Cost Estimate<sup>1</sup> (RMB/hr)</b></p> <p>0.31</p>
High season subsidy	<p><b>Assumptions</b></p> <ul style="list-style-type: none"> <li>Special seasonal subsidy source: pay stubs.</li> <li>There is no seasonal subsidy from Jan-July, Calculated subsidy spread out over 12 months; the difference with pay average actual stub subsidy amount equals the adjustment (-0.48).</li> </ul>	<p><b>Labor Cost Estimate<sup>1</sup> (RMB/hr)</b></p> <p>-0.48</p>
Hiring costs	<p><b>Assumptions</b></p> <ul style="list-style-type: none"> <li>Average hiring cost for each worker (to intermediary) is 600 RMB (~\$96)<sup>3</sup></li> <li>If new worker resigns within 3 months, her labor dispatch company will subtract hiring fee from worker's wages—incurs no cost to Pegatron.</li> </ul>	<p><b>Labor Cost Estimate<sup>1</sup> (RMB/hr)</b></p> <p>0.15</p>
Resignation penalty	<p><b>Assumptions</b></p> <ul style="list-style-type: none"> <li>During peak season, workers who quit<sup>4</sup> will not receive half a month's wages<sup>5</sup>.</li> <li>Workers who quite do not work for three days before quitting (the condition for quitting).</li> </ul>	<p><b>Labor Cost Estimate<sup>1</sup> (RMB/hr)</b></p> <p>-0.15</p>
Unpaid meetings	<p><b>Assumptions</b></p> <ul style="list-style-type: none"> <li>Workers required to be at workshop 10 min. before shift begins; this time is not recorded into wages.</li> <li>Based on 5 days of weekday (1.5x pay) overtime and 1 day of weekend overtime (2x pay).</li> </ul>	<p><b>Labor Cost Estimate<sup>1</sup> (RMB/hr)</b></p> <p>-0.28</p>

1. Costs spread out among all workers' hours, leading to cost savings. 2. Turnover rate based on CLW interviews and investigation; see appendix. 3. Cost for factory to hire via intermediary hiring agency; actual cost 600-1,200 RMB; average based on interviews with 60 former workers in 2013-14. 4. Quitting means that a worker's resignation/leave was not permitted and worker simply stops coming to work. 5. CLW conducted follow-up investigation on Pegatron in Jan 2015. Pegatron now has an office tasked with giving past workers their unpaid wages as long as they provide a factory ID. This reports calculation assumes the 2014 system.

1 Just this one Pegatron (Shanghai) factory has an annual \$61 million cost advantage over the Foxconn (Longhua) plant



1. Pegatron Shanghai total workforce
2. Upper limit of Apple working hour standards

## 2 Apple claims it implements supplier responsibility standards and independent internal auditing

### Apple standard

- *"Except in emergency or unusual situations, Supplier shall limit the actual hours worked by each worker to no more than 60 hours per workweek"*

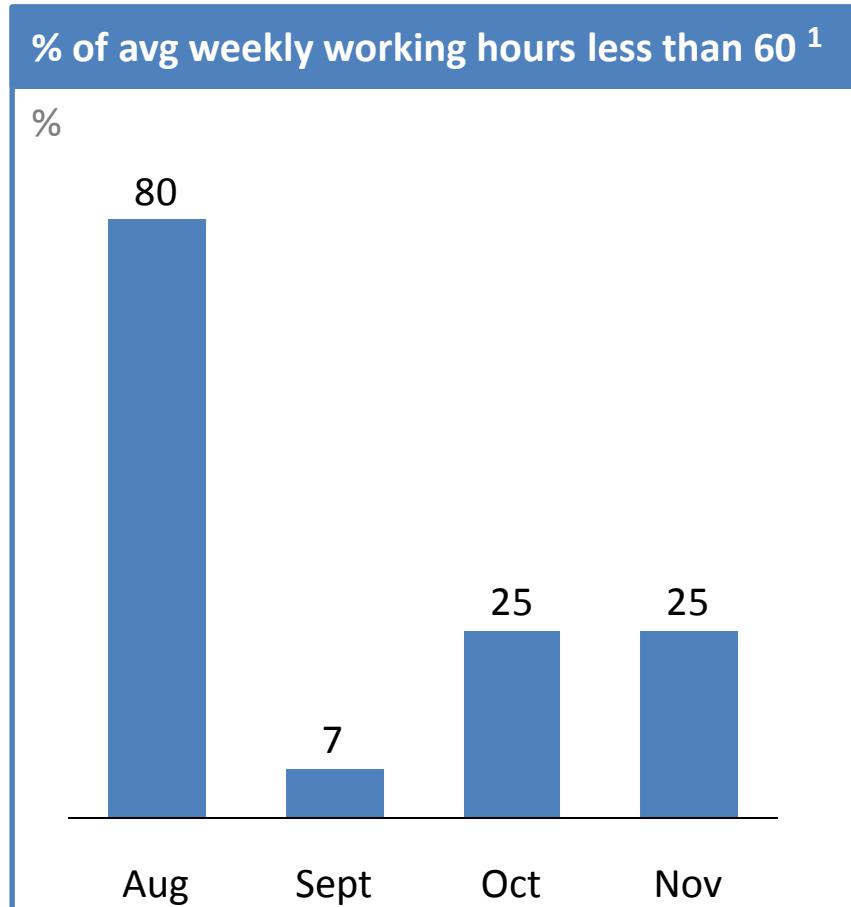
### Apple's comments on Pegatron workers' overtime hours

- *"It [Apple] said it monitored the working hours of more than a million workers and that staff at **Pegatron** were averaging 55 hours a week."*

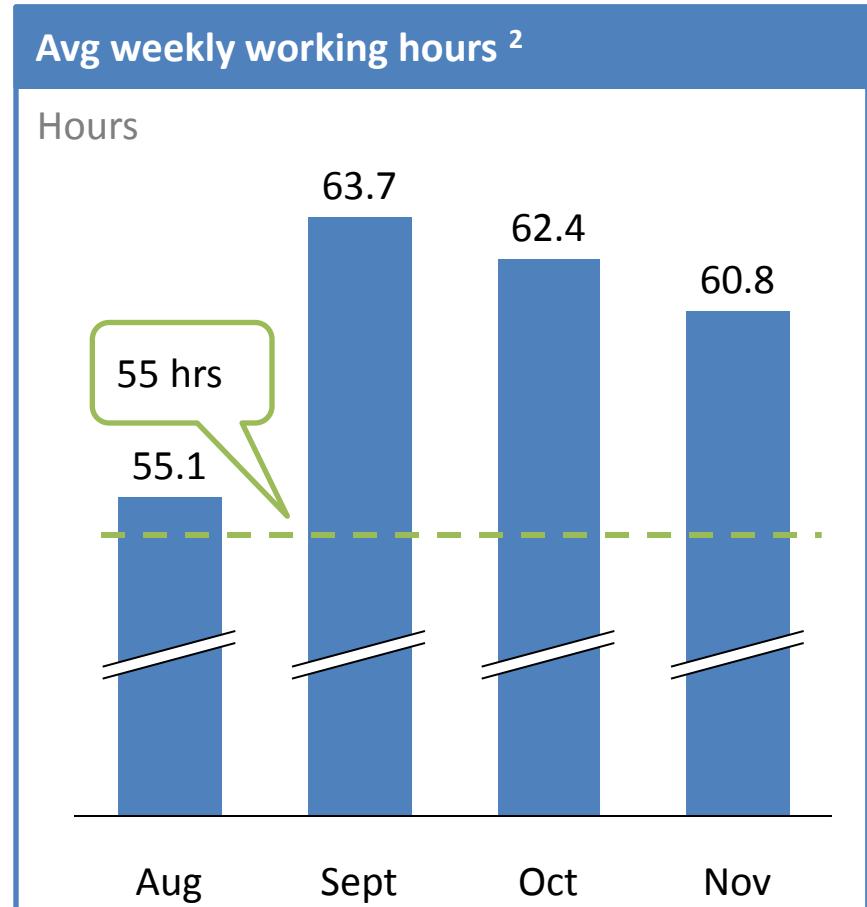
### Internal email of Apple Senior VP of Operations Apple Jeff Williams

- *"This year [2014], our suppliers have achieved an average of 93% compliance with our 60-hour limit"*

## 2 But pay stubs reveal Pegatron SH workers still do excessive overtime



- No more than 80% of workers' hour comply with 60-hr standard
- Sept-Nov, no more than 25% meet standard
- Average compliance among all months: 57%

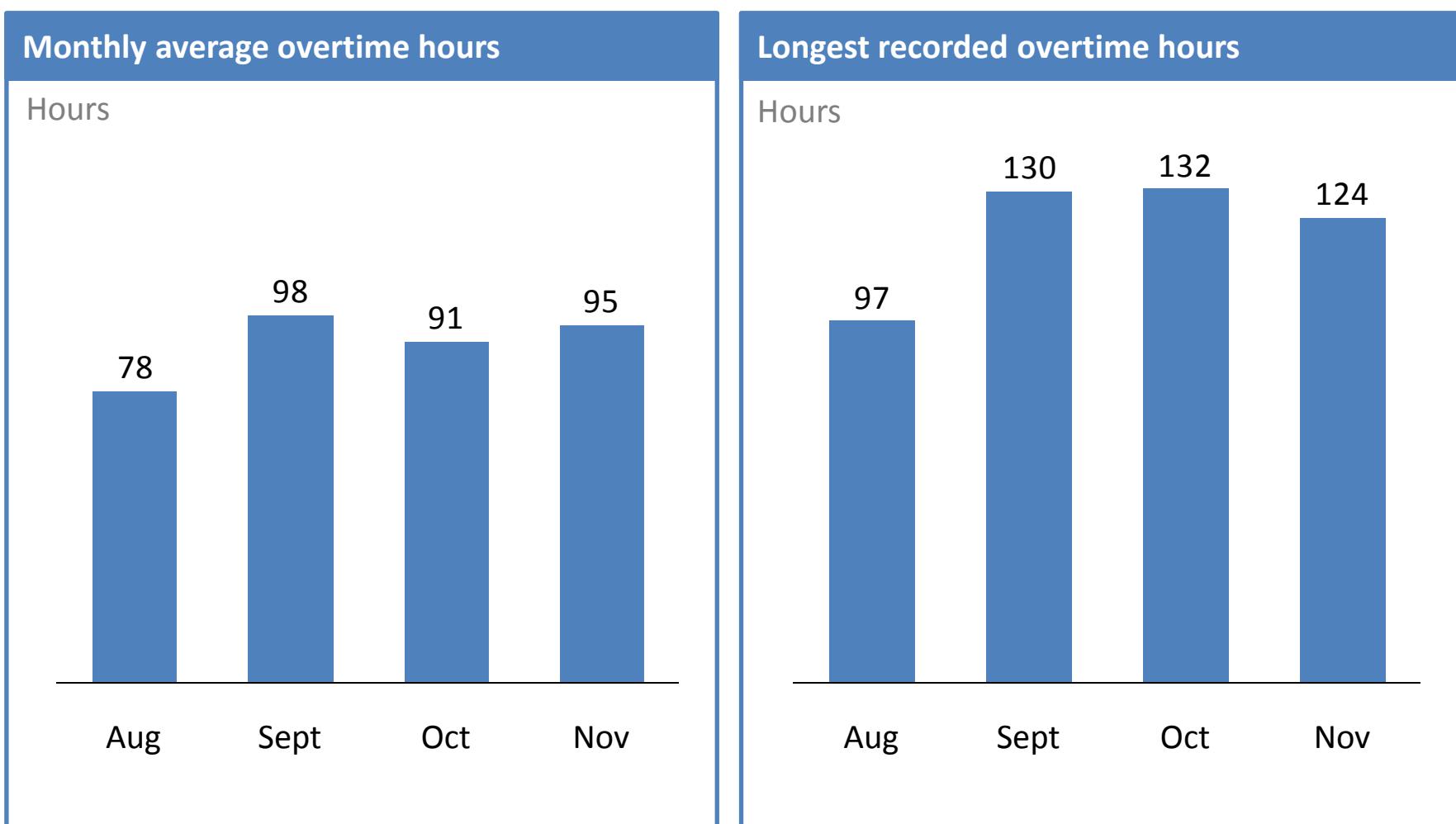


- Aug-Nov, only Aug comes close to Apple's claimed 55 hours
- Sept-Nov, average weekly working hours all surpassed 60 hours.

1. Source: 58 Pegatron pay stubs from Aug-Nov 2014.

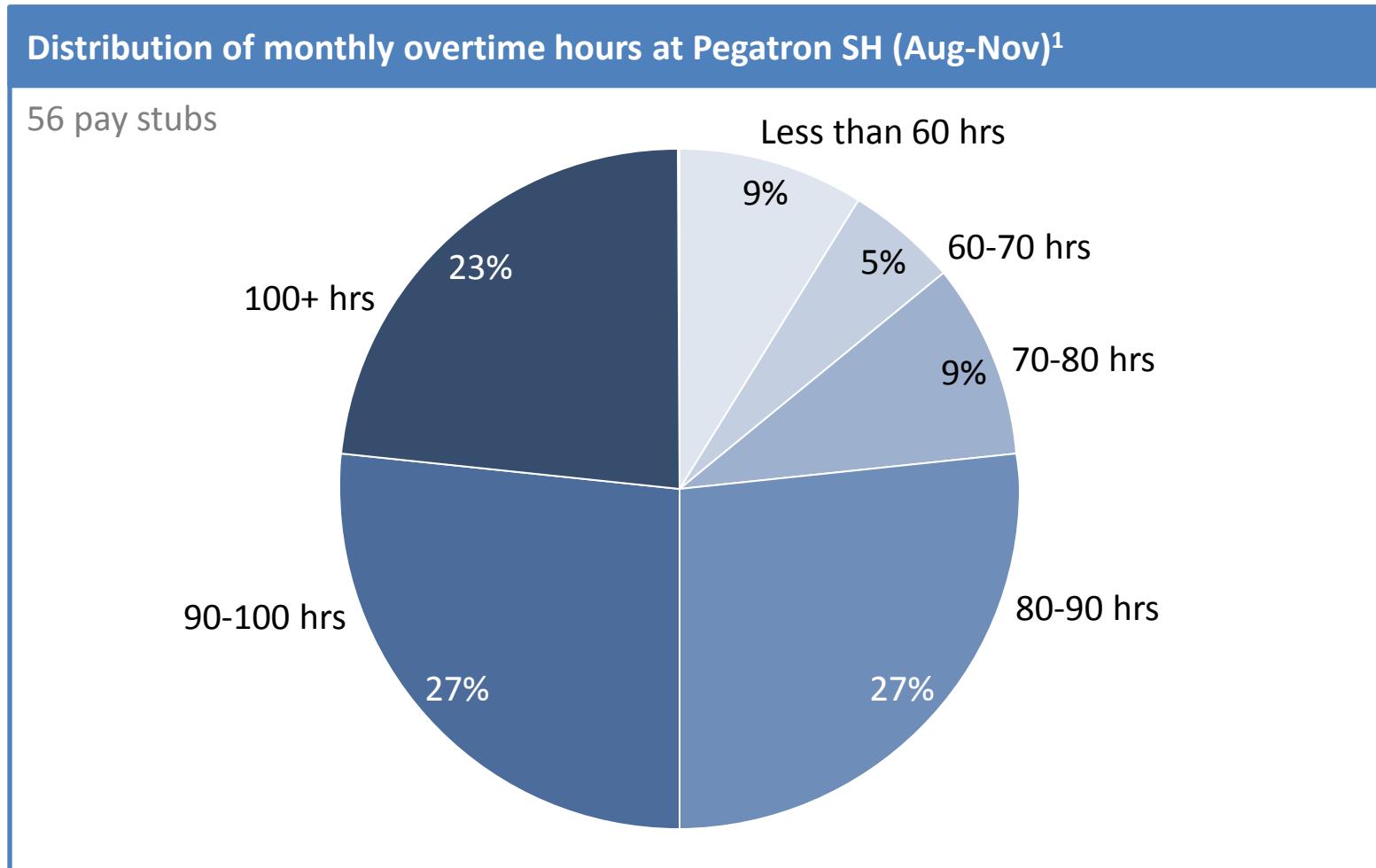
2. Overtime upper limit includes 2 hours of overtime per normal workday, 10 hours on weekend (equaling a 60-hour workweek).

## 2 Average monthly overtime 90-100 hour, even up to 132 hours



1. Source: 58 Pegatron SH pay stubs from Aug-Nov 2014, including those with complete overtime info and those with full attendance bonuses.
2. Overtime upper limit includes 2 hours of overtime per normal workday, 10 hours on weekend (equaling a 60-hour workweek)
3. Numbers of paystubs used: August: 15; September: 15; October: 16; November: 12

## 2 50% Pegatron SH workers did more than 90 hrs overtime/month



1. Source: 56 Pegatron SH pay stubs from Aug-Nov 2014, including those with complete overtime info and those with full attendance bonuses.

## 2 Workers must take on overtime because base wages are too low



1. Incl. base wage, seniority pay, allowances; based on 77 pay stubs from workers with at least one month of work at Pegatron SH. 2. Incl. base wage, allowances, bonuses, subsidies, and overtime pay; based on 77 pay stubs from workers with at least one month of work at Pegatron SH.

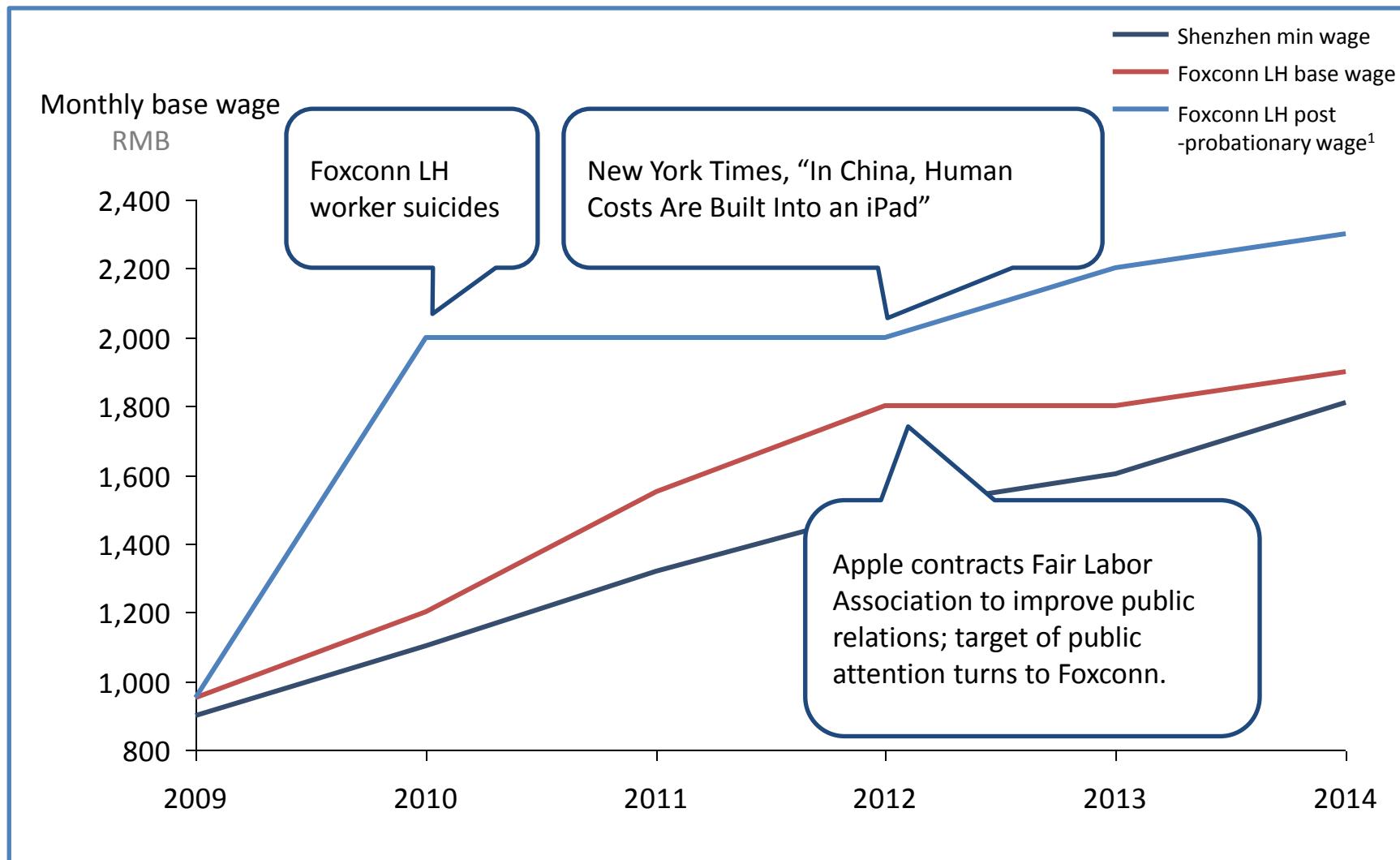
3. Source: Shanghai Statistic Administration. 2014 urban resident average expenditure was 2,543 RMB, but the included living costs (253 RMB) does not include housing purchase or construction costs. Most workers are residents of other regions and cannot purchase housing, so replaced it with rent of 917 RMB based on the average rent of Shanghai Pudong District (location of Pegatron). 2,543 RMB – 253 RMB + 917 RMB = 3,207 RMB.

## 2 Still other problems: social insurance, dispatch labor, and housing conditions

	Pegatron SH	Foxconn LH
Social insurance	<p><b>Description</b></p> <ul style="list-style-type: none"> <li>Pegatron does not pay for dispatch worker's social insurance costs (761.7 RMB/month).<sup>1</sup></li> <li>About 30% of workers are dispatch labor (23 of 77 complete pay stubs).<sup>1</sup></li> </ul> <p><b>Hourly cost adjustment<sup>5</sup></b> RMB/hr</p> <p style="text-align: center;">0.89</p>	<p><b>Description</b></p> <ul style="list-style-type: none"> <li>Foxconn pays social insurance based on workers' base wage of 2,300 RMB<sup>4</sup>.</li> <li>Actual regulations dictate that Foxconn pay insurance according to a worker's comprehensive wages.</li> <li>The difference between the two are calculated and spread out across 12 months.</li> </ul> <p><b>Hourly cost adjustment<sup>5</sup></b> RMB/hr</p> <p style="text-align: center;">1.30</p>
Large numbers of dispatch workers	<p><b>Description</b></p> <ul style="list-style-type: none"> <li>Pay stub information reveals dispatch workers constitute about 30% of workforce.<sup>2</sup></li> </ul> <p><b>-</b></p>	<p><b>-</b></p>
Housing conditions	<p><b>Description</b></p> <ul style="list-style-type: none"> <li>Each dorm room has 10-12 workers<sup>3</sup></li> <li>Apple standards restrict dorm to 8 people</li> </ul> <p><b>-</b></p>	<p><b>-</b></p>

1. Based on 2014 non-resident insurance rules (New Shanghai Tri-Insurance Plan). 2. Determined based on whether or not pay stub showed person insurance deduction; those without a deduction are recognized as dispatch workers. Only examined pay stubs of workers working for at least 1 month. 3. Based on CLW Jan 2015 interviews and investigation at Pegatron SH. 4. Based on insurance regulations of Shenzhen Municipality. 5. See appendix for calculations.

### 3 Media was the real force that changed Foxconn LH's labor conditions



NOTE: This graph uses year as unit of measure. Foxconn suicides occurred in spring/summer 2010; Foxconn LH wages were increased in the autumn. Sources: Foxconn LH and Pegatron SH pay stubs and interviews as well as company hiring information. Shenzhen minimum wage is published by the Shenzhen Municipal Administration of Human Resources and Social Security.

1. Probation period is three months in 2014

### 3 As the suppliers competed, Fair Labor Association simply shifted media attention from Apple to Foxconn instead of fully resolving problems

#### FLA assessment

In 2012, FLA assessed labor conditions of Foxconn (Longhua) facilities that made Apple products, finding a number of labor problems, especially those related to working hours and worker representation.

#### FLA statement<sup>1</sup>

- In a March 2012 statement, FLA said that it
- Secured a commitment from Foxconn “to bring its factories into full compliance with Chinese legal limits and FLA standards on working hours by July 2013”
  - “The supplier will bring working hours in line with the legal limit of 49 hours per week, including overtime.”
  - “More importantly, while employees will work fewer hours, Foxconn has agreed to develop a compensation package that protects workers from losing income due to reduced overtime.”

#### Actual result<sup>2</sup>

Critically, these and other reform commitments were never effectively implemented.

- As two suppliers essentially compete over labor costs, to only demand that one side improve labor conditions is no different than making it sacrifice market share.
- To only target one supplier cannot effectively improve labor conditions over the long-term.

1. Fair Labor Association statement in March 2012.  
2. CLW investigations.

### 3 Compared with Foxconn, Pegatron has received little attention

#### Baidu news<sup>1</sup> search results

##### Search terms:

Foxconn: “富士康”+“工人”

Pegatron: “和硕”+“工人”; “昌硕”<sup>2</sup>+“工人”; “日腾”<sup>2</sup>+“工人”

31,200



Foxconn  
Pegatron

#### Google search results

##### Search terms:

Foxconn: “Foxconn” + “worker”

Pegatron: “Pegatron” + “worker”

314,000



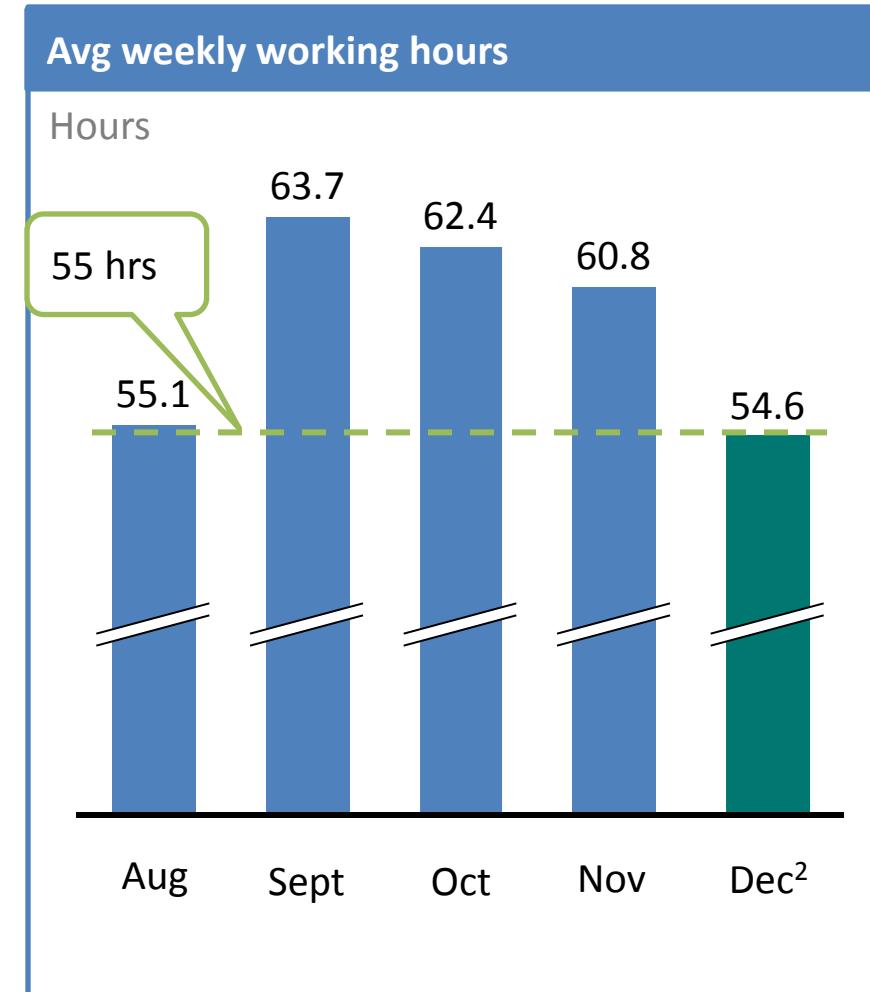
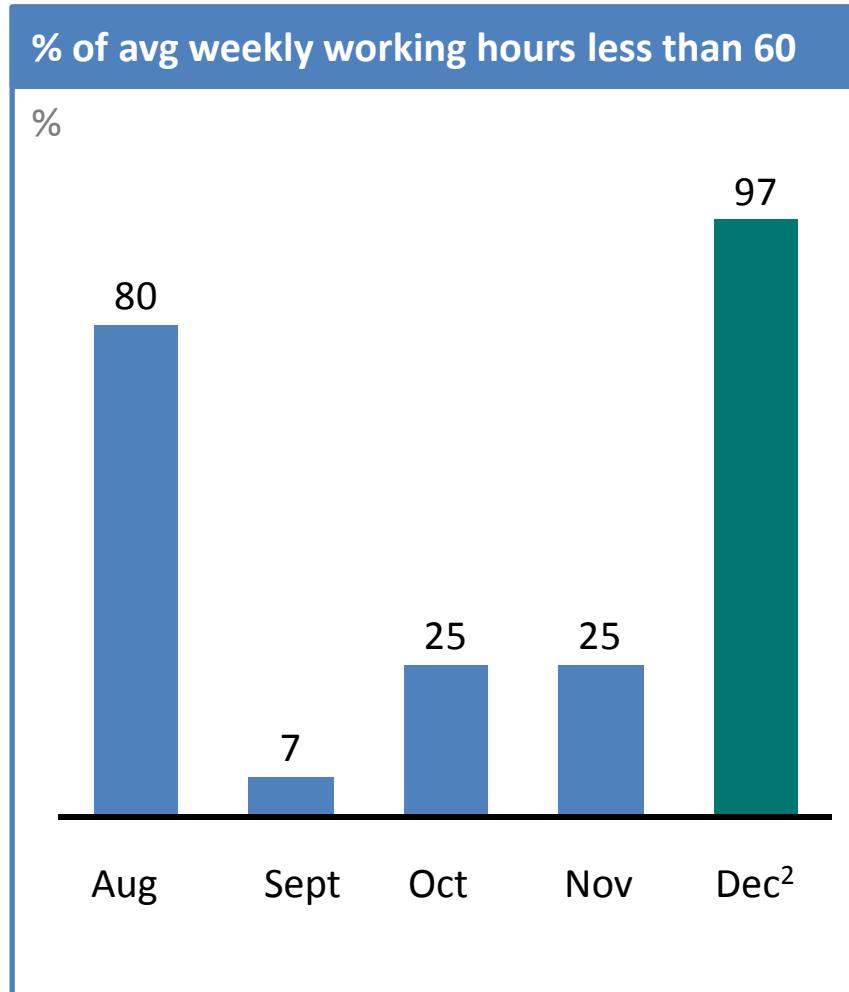
Foxconn  
Pegatron

-78%

- Used news search in order to avoid results on hiring information.
- These are all Pegatron subsidiaries that manufacture for Apple.

3

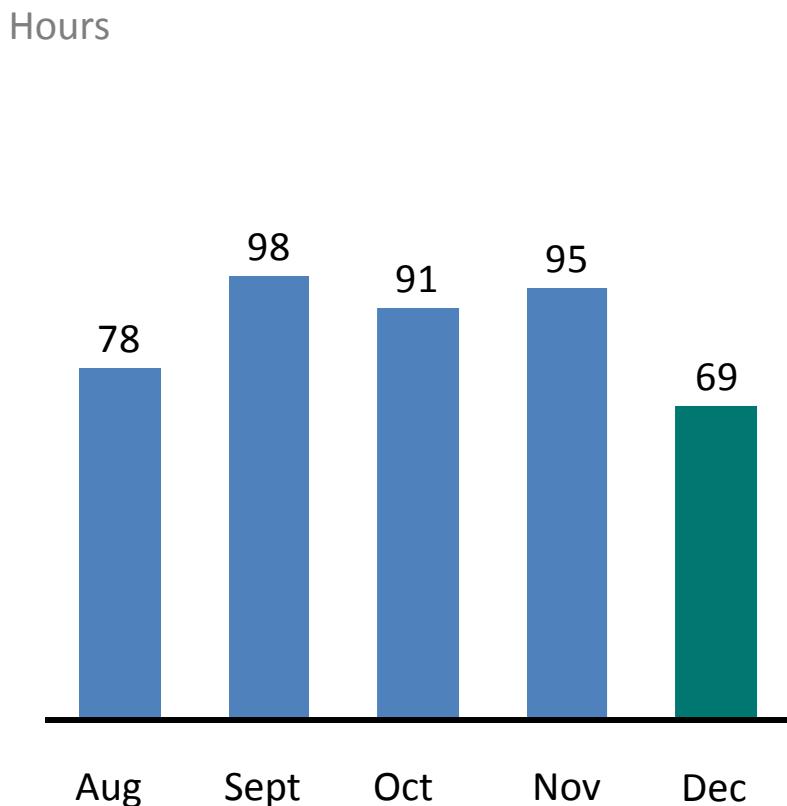
Only when BBC exposed Pegatron (Shanghai) working conditions at the end of 2014 were working hours quickly reduced.<sup>1</sup>



1. In mid-Dec BBC Panorama broadcast a special report that included an investigation of Pegatron SH's labor conditions. BBC began discussing findings of its investigation with Apple in November 2014.
2. Source: 34 Pegatron SH pay stubs from December. Aug-Nov data the same as in previous pages.

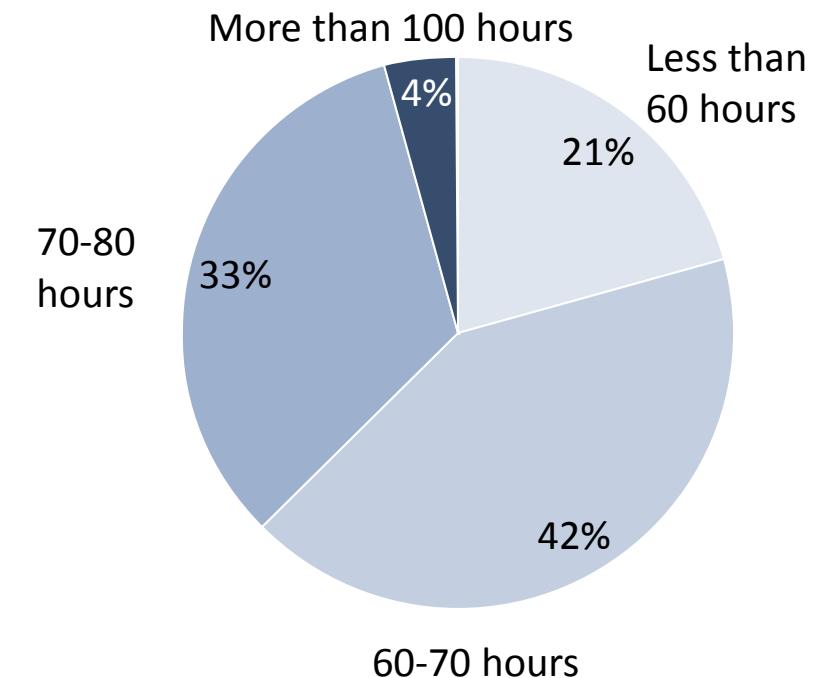
③ December monthly average overtime reduced to 69 hours; 96% of workers labored less than 80 overtime hours

Monthly average overtime



Distribution of monthly overtime (Dec 2014)

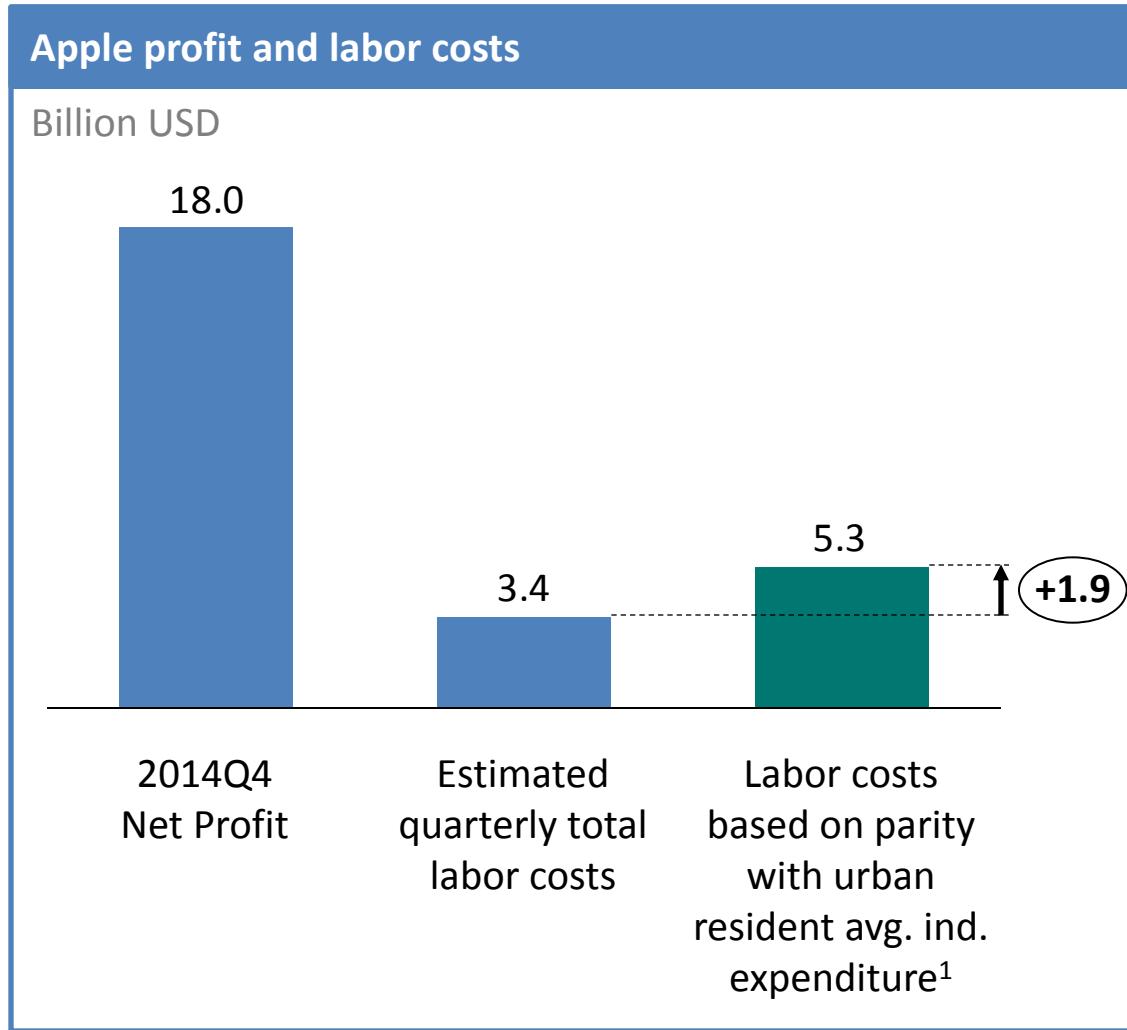
Based on 24 pay stubs



1. Source: 24 pay stubs of Pegatron SH workers who have done at least one month of work at Pegatron SH. Aug-Nov data the same as in previous pages.

4

## Apple's large profits provide sufficient space to improve working conditions throughout its entire supply chain (1.5 million workers)



Bringing worker base wage in Apple's entire supply chain to parity with basic living cost level of average urban resident would cost Apple \$1.9B per quarter,<sup>1</sup> about 10% of Apple's quarterly profits.

Additionally, Apple has **\$178B in cash reserves** and is valued at **\$700B**.

1. Assumes 55% raise of wages of all workers in Apple's supply chain (1.5 million people) based on the amount it would require to raise Pegatron workers' average wages to the Shanghai urban resident adjusted average individual expenditure. This labor costs for the quarter were calculated in the same as that above.

# Even when Apple claims time and again that it is improving labor conditions, the reality is less positive

## Apple claims related to improving labor conditions

*“We care about every worker in our worldwide supply chain”*

- Apple CEO Tim Cook<sup>1</sup>

*“We know of no other company doing as much as Apple does to ensure fair and safe working conditions, to discover and investigate problems, to fix and follow through when issues arise, and to provide transparency into the operations of our suppliers”*

- Apple Senior VP of Operations Jeff Williams<sup>2</sup>

*“We’re working to eradicate unethical hiring and exploitation of workers—even when local laws permit such practices. We’re continuing our efforts to end excessive work hours”*

- Apple’s Labor & Human Rights webpage<sup>3</sup>

## Reality

- Extended periods of long, tiring overtime work
- Workers’ base wage unable to meet basic living needs
- Suppliers do not fully pay social insurance
- Use of large numbers of dispatch labor
- Crowded dormitories

1. Source: Apple internal email widely republished by media.

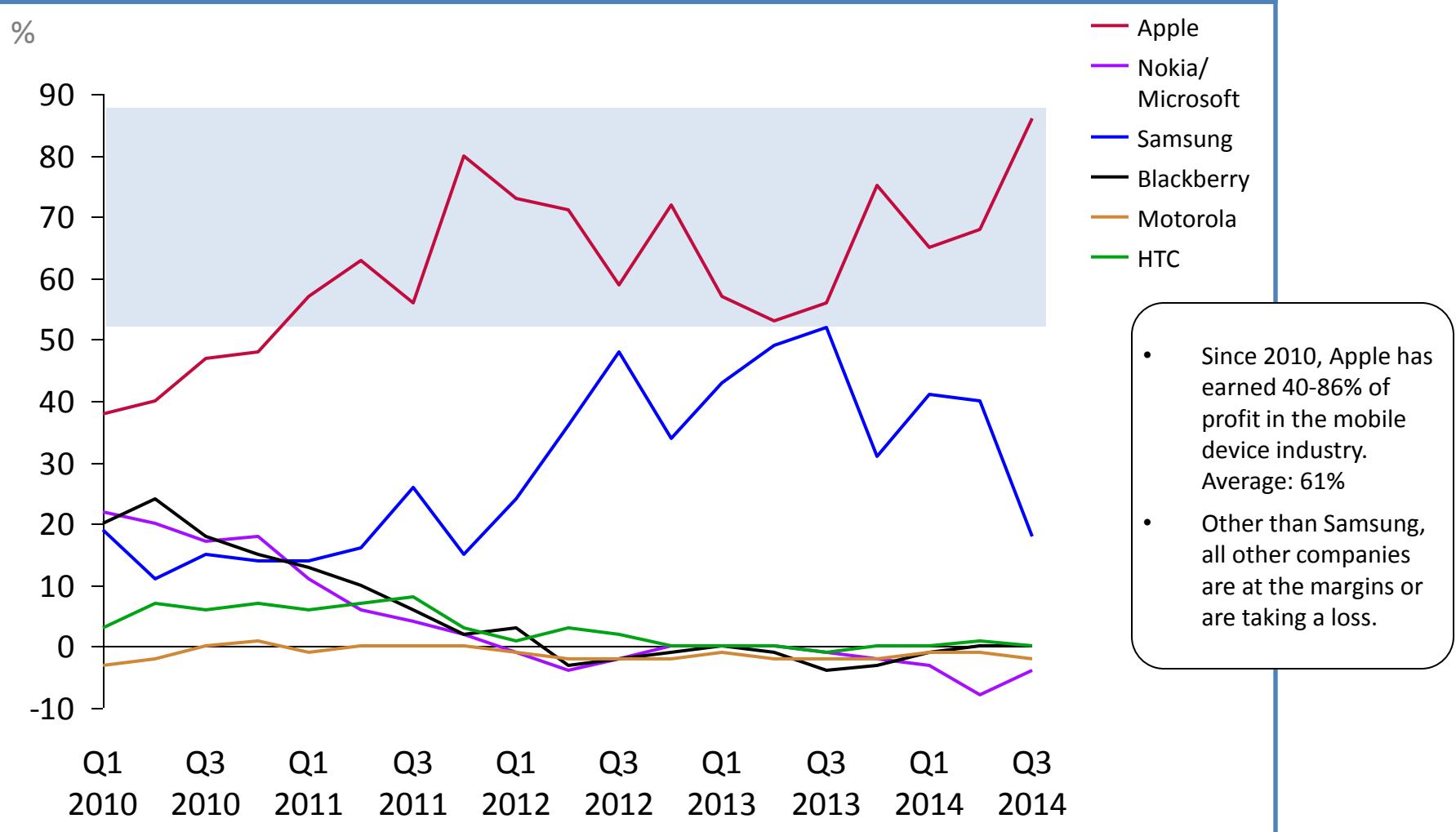
2. Source: From Apple internal email published in BBC report.

3. Apple Supplier Responsibility

4

## Earning three-fifths of the profit in the industry, if Apple doesn't reform labor conditions, who will?

Mobile device operating profit value share by OEMs



Source: Canaccord Genuity data reported by media like Businessinsder etc., China labor watch gather and created the chart; In a few quarters, Apple and Samsung together account for more than 100% industry profit since other suppliers are in deficit

# APPENDIX

# Pegatron pay stub information

- CLW obtained 96 Pegatron (Shanghai) pay stubs in January 2015
- Pay stubs mainly spanned from Aug-Dec. Specific distribution:
  - August: 15
  - September: 16
  - October: 16
  - November: 12
  - December: 34
  - Other months: 3
- 4 pay stubs were discounted because overtime information was unclear.
- Of the remaining 92 pay stubs:
  - 92 pay stubs were used to calculate weekly workings hours of workers from Aug-Dec.
  - 80 pay stubs included workers with at least one month of work at Pegatron; this data was used to calculate monthly overtime.
  - 77 pay stubs has more complete information and belonged to workers with at least one month of work; these were used to calculate average wages.
- Pay stubs are from 25 sections within 18 different departments.

# Usage summary regarding 96 Pegatron pay stubs

		2014										Used in calculation		
		Unclear	June	July	Aug	Sept	Oct	Nov	Dec	Total	Weekly working hrs	Monthly overtime	Average wages	
Complete pay stubs	Complete base wage		1	1	12	15	16	9	23	77	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
	Less than base wage				1			1	10	12	<input checked="" type="checkbox"/>			
	More than base wage							1		1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Some info unclear	Clear overtime <sup>2</sup>				2			1	1	4	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
	Overtime unclear	1				1				2				
Total		1	1	1	15	16	16	12	34	96				
Aug-Nov Total											58	56	52	
Dec Total											34	24	23	

1. Base wage greater than 1,820RMB
2. These four pay stubs had complete base wage amounts.

# Pegatron worker overtime calculation methods

	Explanation
Hourly wage	<ul style="list-style-type: none"><li>Base hourly wage equal to base monthly wage divided by monthly working hours: 1,820 RMB<sup>1</sup> / 21.75 days<sup>2</sup> / 8 hours (per day) = 10.46 RMB (\$1.67)</li><li>Overtime pay equals product of base hourly pay depending on the day: 1.5x on weekdays (15.69 RMB), 2x on weekends (20.92 RMB), and 3x on holidays (31.38 RMB).</li></ul>
Monthly working hours	<ul style="list-style-type: none"><li>If the base wage is 1,820 RMB, then it signifies normal working days every month (see next page for actual working days) and 8 hours per day.</li><li>If base wage is less than 1,820 RMB, the calculation is: base wage / 1,820 x 21.75 days.</li><li>Leave and absence is deducted from monthly working hours by translating corresponding each wage's leave items in into hours based on base hourly wage.</li></ul>
Overtime hours	<ul style="list-style-type: none"><li>Overtime hours equal to overtime wages divided by corresponding hourly overtime pay (e.g., weekday overtime, weekend overtime, holiday overtime).</li></ul>
Monthly work hours compliance	<ul style="list-style-type: none"><li>Monthly overtime hours in compliance (with Apple standards) are those that are equivalent to less than a 60-hour workweek when converted into weekly overtime hours (i.e., 20 hours overtime/week).</li><li>Overtime in compliance (with Apple standards) includes 2 hours of overtime on weekdays, 10 hours on Saturday, and no overtime on Sundays or holidays.</li></ul>
Weekly working hours	<ul style="list-style-type: none"><li>Weekly working hours converted from monthly working hours by dividing monthly working hours by total working days (weekdays plus Saturdays), and then multiplying by 6.</li><li>Total monthly working hours equal to monthly base hours plus overtime hours.</li></ul>

1. If base wage more than 1,820 RMB, the actual base wage is used for calculation.
2. Based on Pegatron hiring ad.

# Days in various months of 2014

	Normal workdays <sup>1</sup>	Saturdays	Total	Holidays
June	20	4	24	• Dragon Boat Festival (1 day)
July	23	4	27	• -
Aug	21	5	26	• -
Sept	21	4	25	• Mid-Autumn Festival (1 day)
Oct	20	4	24	• National Day (3 days)
Nov	20	5	25	• -
Dec	23	4	27	• -

<sup>1</sup> Holidays have been excluded

# Estimate of turnover rates and seniority

Seniority (month)	Month													
	2	3	4	5	6	7	8	9	10	11	12	1	2	
Turnover rate	20.0%	10.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	10.0%	20.0%	
0	100	20.0	10.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	10.0	
1		80.0	18.0	9.5	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.5	
2			72.0	17.1	9.0	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.3	
3				68.4	16.2	8.6	4.3	4.3	4.3	4.3	4.3	4.3	4.1	
4					65.0	15.4	8.1	4.1	4.1	4.1	4.1	4.1	3.9	
5						61.7	14.7	7.7	3.9	3.9	3.9	3.9	3.7	
6							58.6	13.9	7.4	3.7	3.7	3.7	3.5	
7								55.7	13.2	7.0	3.5	3.5	3.3	
8									52.9	12.6	6.6	3.3	3.1	
9										50.3	11.9	6.3	3.0	
10											47.8	11.3	5.7	
11												45.4	10.2	
12													40.8	
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	
Workers <3month with OEM					31.6	18.8	14.3	14.3	14.3	14.3	14.3	14.3	18.8	

## Explanation

- Monthly turnover rated based on CLW investigate estimates.
- The work year begins from February. Assumption that workforce does not change throughout the year.
- Assumes turnover and seniority is unrelated; correlation with month only.

1 For detailed calculation see attachment.

# Attachment list

**Attached pdf file includes:**

- Original copies of 96 pay stubs from Pegatron workers

**Attached Excel files include:**

- Pegatron pay stubs (96) and analysis
- Labor cost comparison between Pegatron and Foxconn
- Apple, Foxconn, and Pegatron financials