



Joint Colloquium of the IACA, PBSS and IAAHS Sections of the International Actuarial Association

Westin Copley Place Hotel, Boston, U.S.A. – 4-7 May 2008

**Pension Reform for the Federal Government's Old Age Workers. How It
Affects Public Universities**



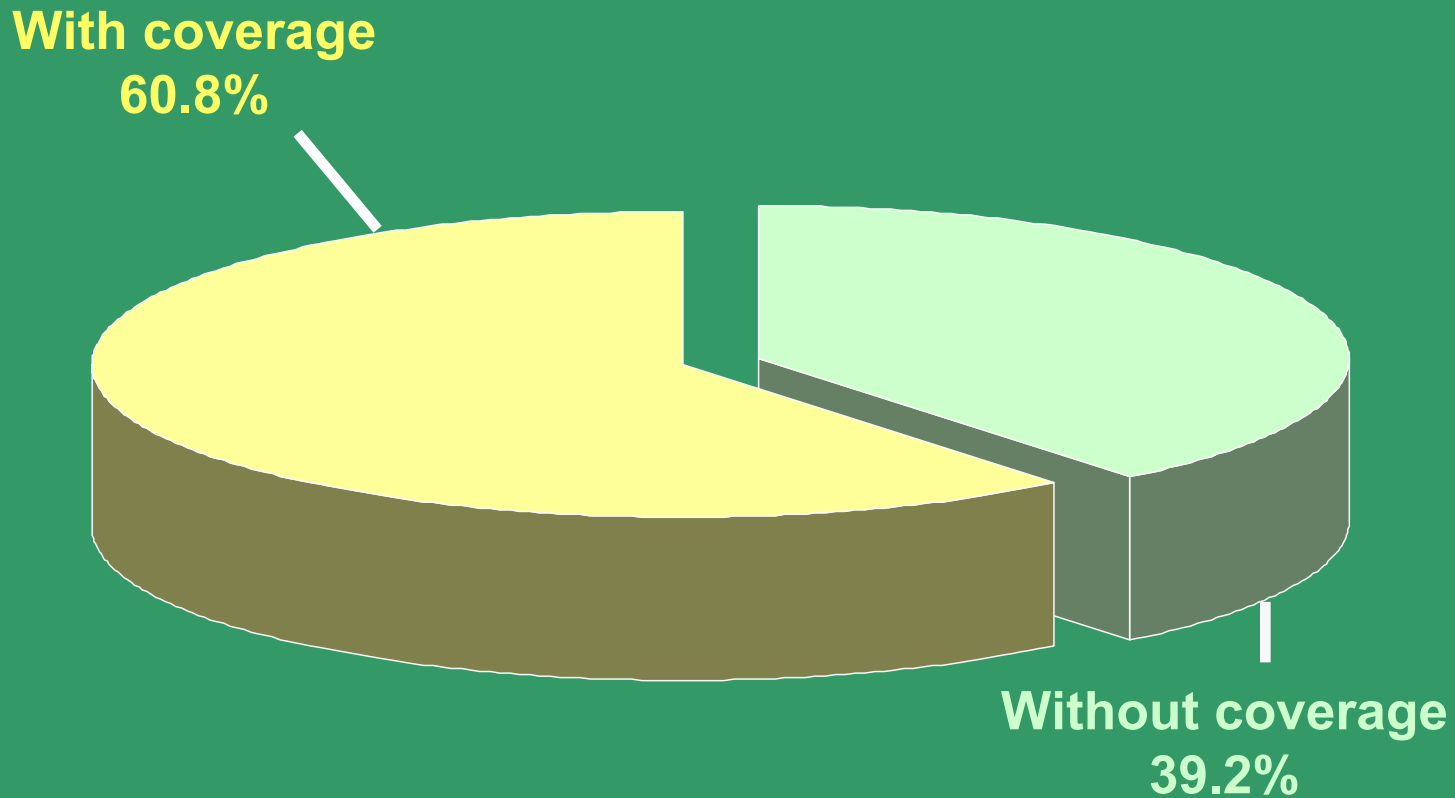
Casa abierta al tiempo



Victoria Yolanda Daniel Chichil

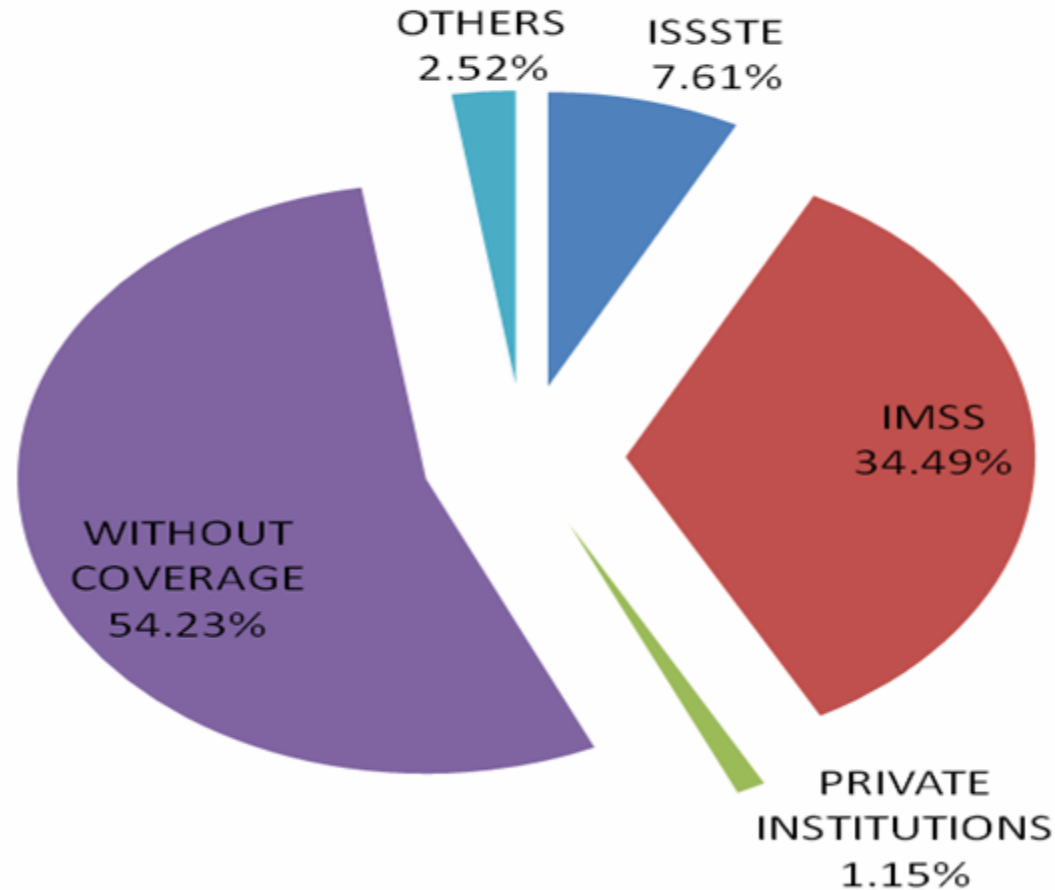


Population with or without coverage by social security

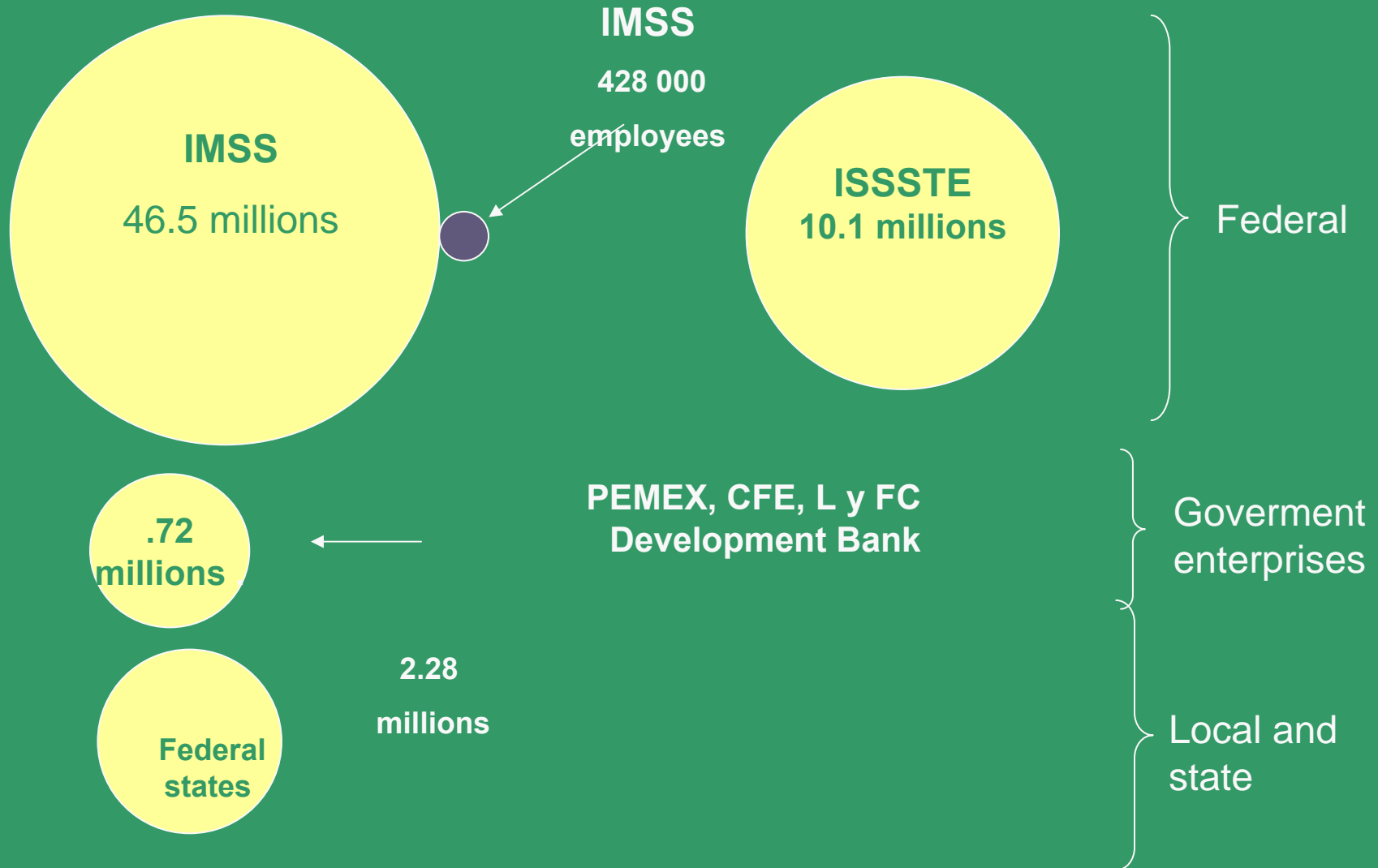


Fuente: INEGI, *Estadísticas sociodemográficas 2000*

Economically Active Population their Coverage



Social security systems and their covered population



After 10 years of individual accounts in IMSS

- The most recent study about new salary substitution rates with suppositions:
- 0.5% real wage increment
- 3.5 % real interest rate to calculate annuity
- 5% real investment rate
- A 40 years labor life
- Retirement age: 65
- In a mortality drop down environment there were obtained the following results:

Pay-as-you-go VS Individual Accounts

Mortality decrease in the replacement rate (2000)

Multiple of Minimum Wage		Regime Definite Benefit (IMSS)	Regime Definite Cost (IMSS)
		Pay-as-you-go	Individual Accounts
Low	1.0	100%	63%
Medium	4.0	69%	43%
High	25	76%	40%


Source: González, Pérez Carlos y Guerrero, Guzmán Víctor (2007). *Pronósticos Estadísticos de Mortalidad y su Impacto sobre el Sistema de Pensiones en México*.

First the Social security's reform for private sector and then for public sector

- In april 2007, the law that covers all the government employees was submitted into reformation. This population includes those from public universities.
- The reform substituted the definide benefit regime for one of definide contribution.

ISSSTE's Reform

AGE AND YEARS OF SERVICE REQUIRED FOR AN OLD-AGE PENSION

	New Regime		Former Regime	
	Age	Service	Age	Service
Old-age retirement	65 M & F	25 and +	No limit	M 30 years F 28 years
Earlier Retirement	 Pension calculated from individual account ≥ 1.30 Guaranteed Pension *		55 and +	15 years and +
Earlier Retirement	60 and + M & F	25 and +	60 and + M & F	10 years and +

*Guaranteed pension: \$333 USD updated annually according the National Index of Prices

INDIVIDUAL ACCOUNT (% APPLIED TO THE BASIC WAGE)

OLD-AGE

(6.125% + 3.175%)

RETIREMENT COMPLEMENT

(2 %)

SOLIDARITY SAVING ELEMENT

WORKER : UP TO 2 %;

GOVERNMENT: \$3.25 mxp FOR EVEN \$ 1mxp COVERED BY THE WORKER, (UP TO 6.5 %)
(\$0.35 USD FOR EACH \$0.11 USD)

LONG-TERM SAVINGS*

(AMOUNT SAVED SINCE 1992)
(FROM 2 %CONTRIBUTIONS)

VOLUNTARY CONTRIBUTIONS

HOUSING FUND

(5%)

*FOR WORKERS DURING
TRANSITION PERIOD THAT
CHOSE RECOGNIZED
RIGHTS AND RETIRE WITH
INDIVIDUAL ACCOUNT

CONTRIBUTIONS TO FINANCE OLD-AGE PENSIONS NEW SYSTEM (APRIL 2007)

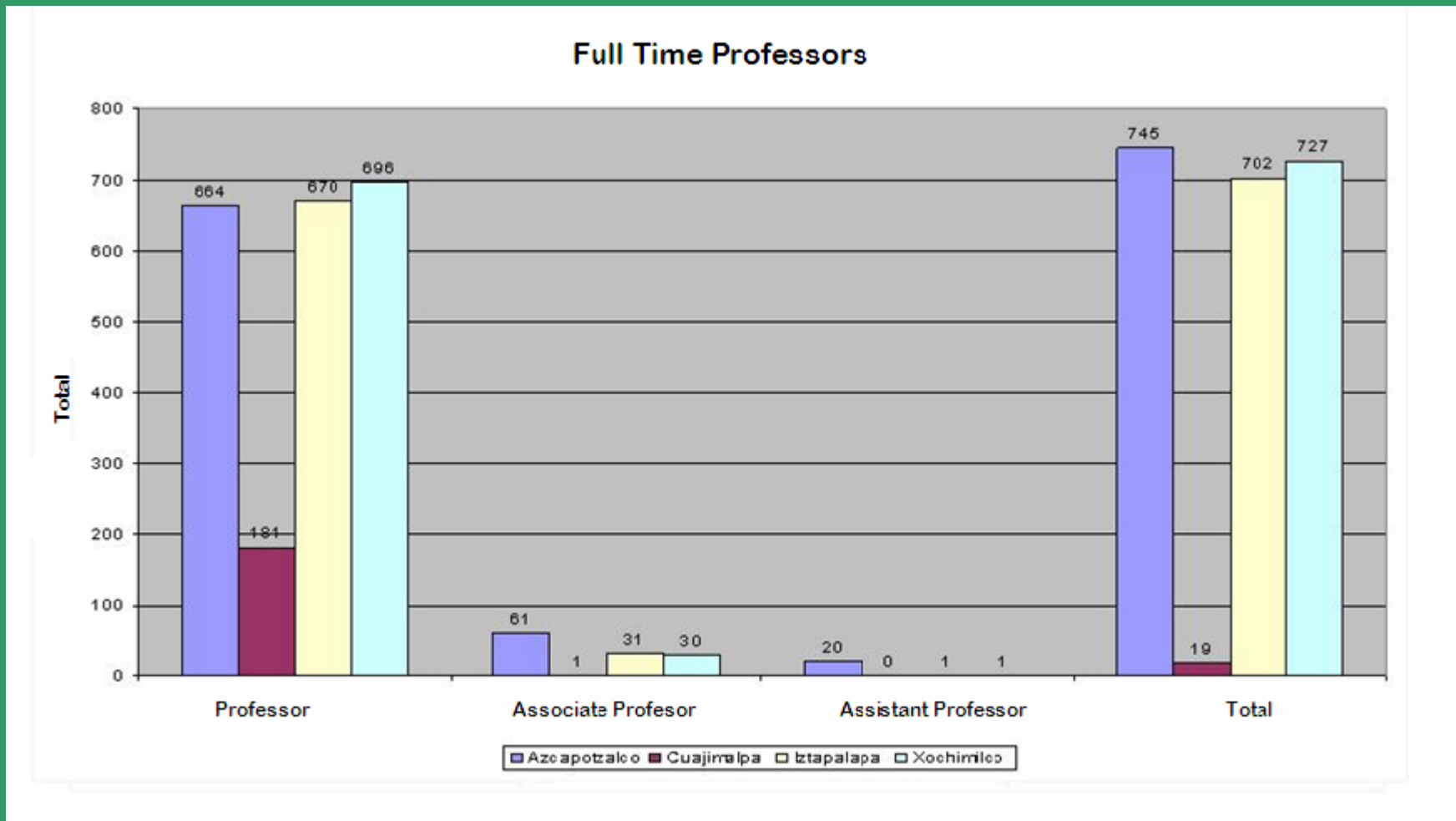
Former Regime (% Basic Wage)		New Regime (% Basic Wage)		
Worker	Federal Government	Worker		Federal Government
3.5%	3.175%	2008	4.025%	3.175 % + (5.5 %)*
		2009	4.550%	3.175 % + 5.5 %
		2010	5.075%	3.175 % + 5.5 %
		2011	5.600%	3.175 % + 5.5 %
		2012 y +	6.125%	3.175 % + 5.5 %

*represents a social amount that the federal government grants for every labor day

A group of workers: the professors of public universities. “Universidad Autónoma Metropolitana (UAM)” study case

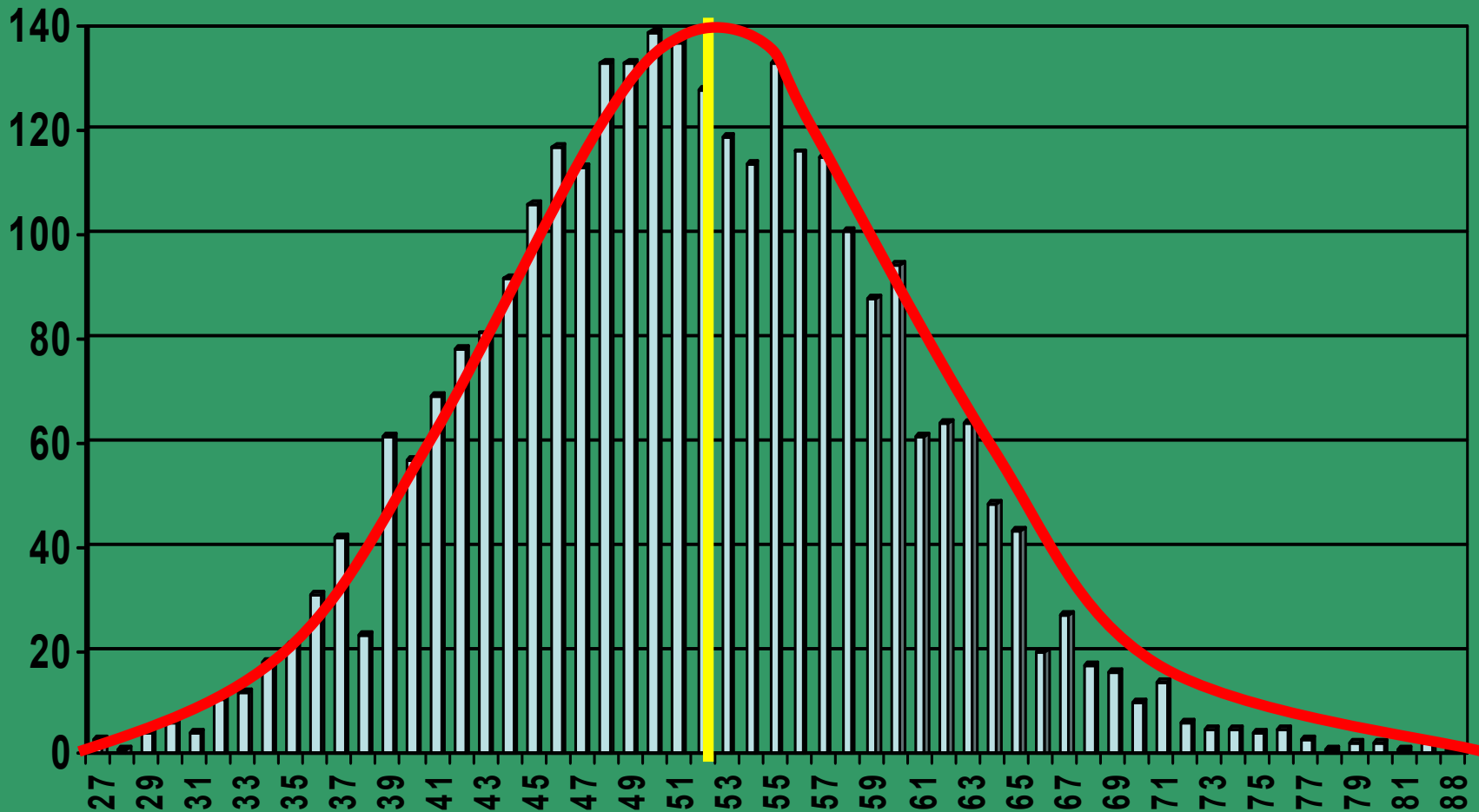
- Which are the professors’ salary conditions of UAM ?

Full Time Professors

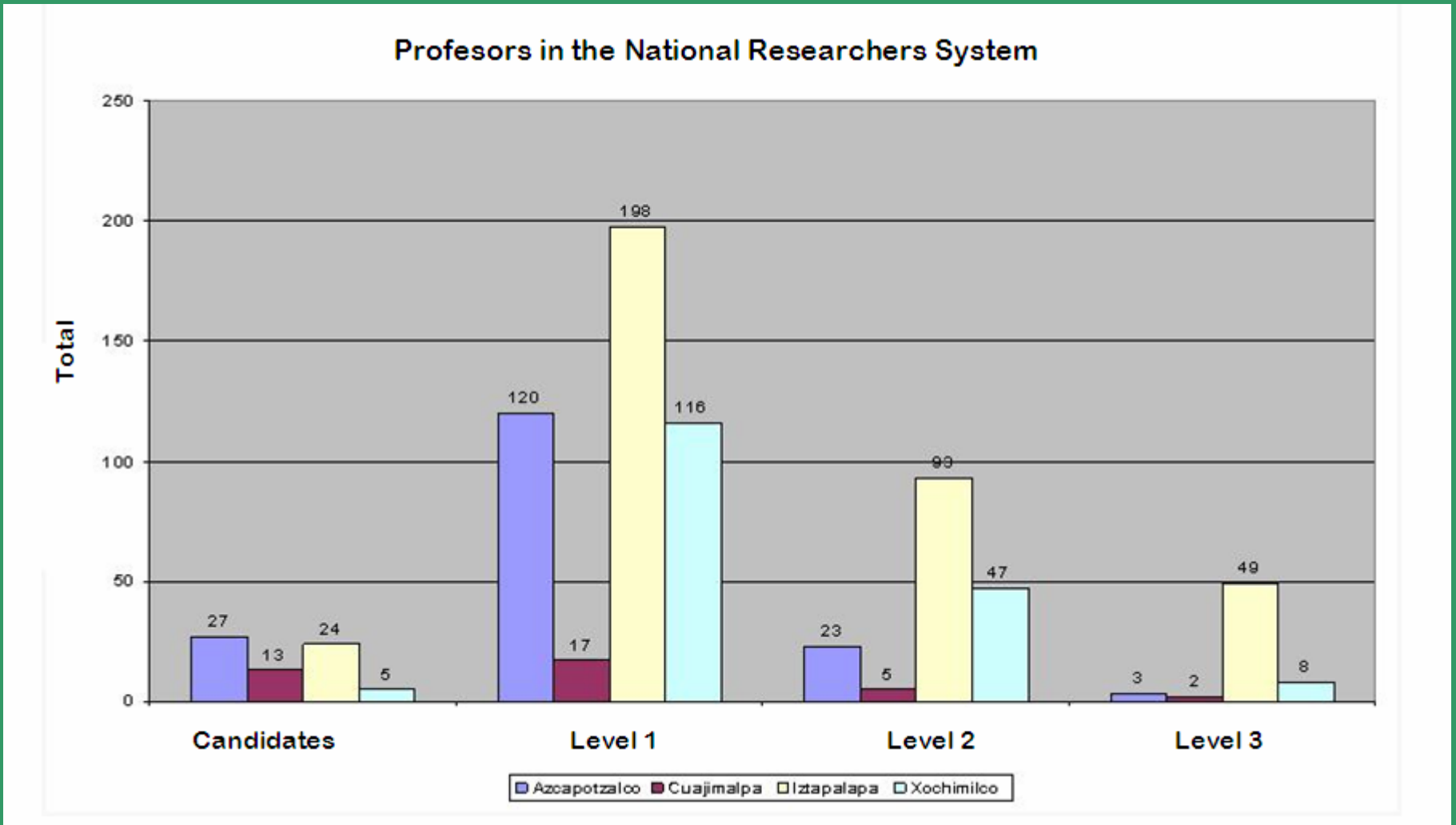


Source: Anuario Estadístico UAM 2006.

UAM Staff's Age Distribution



Uam's professors in the National Researchers System (SNI)



Source: Anuario Estadístico UAM 2006.

National Researchers System's Economic Remuneration

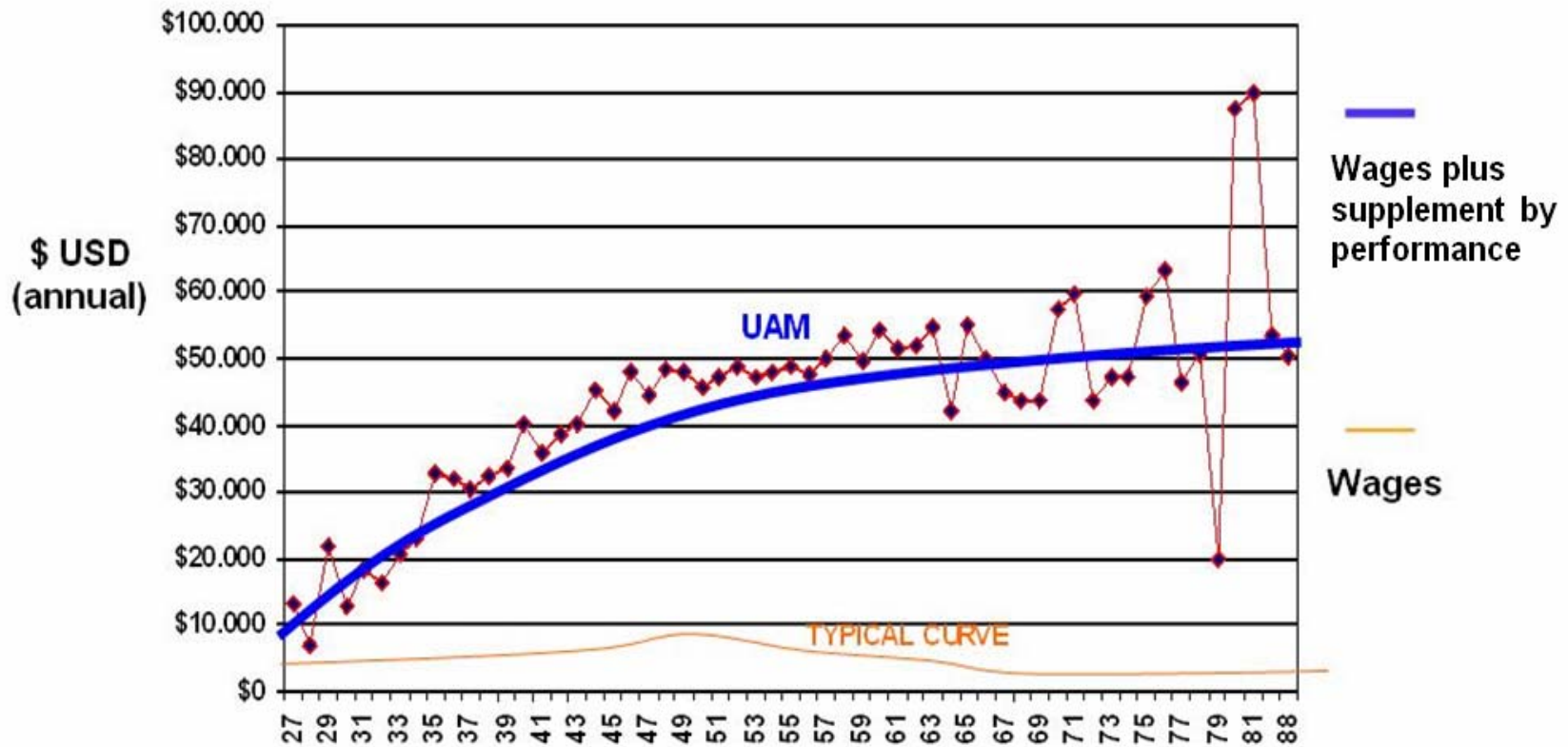
(MONTHLY)

Level	Multiple minimum wages at Distrito Federal (\$139 USD)	Annual Amount (USD)
Candidates	3	\$ 417
1	6	\$ 834
2	8	\$ 1,112
3	14	\$ 1,946
“Emérito Nacional” Researcher	14	\$ 1,946

Income Expectative (min, max) for UAM's Full-Time Professors (usd)

Level	Wage	Wage + years of service supplement	Performance Incentive Program	SNI (level 3)	Total
Titular "C"	\$19,729	\$32,583	\$17,020	\$917	\$70,249
Titular "C"	\$19,729	\$32,583	\$0.0	\$0.0	\$52,312

Professor`s Annual Income & Performance Incentive



Old–Age Pension: regime definide benefit

- 10 minimum wages at Distrito Federal :
\$ 16,686 usd (annual)
- Minimum age: no
- Years of service: M 30 años, F 28 años

The substitution rate...

without benefits would be 84.57%

with benefits by service would be 31.89%

whith benefits (except SNI) would be 24%

with all benefits would be 23.75%

TRANSITION WORKERS (since January 1st 2010)

A) Old-age pensions

- Male 30 years of service.
- Female 28 years of service.
- Years-old increase gradually

YEAR	AGE MINIMUM	
	MALE	FEMALE
If the worker retires in		
During the transition period	No restrictions	No restrictions
2010 y 2011	51	49
2012 y 2013	52	50
2014 y 2015	53	51
2016 y 2017	54	52
2018 y 2019	55	53
2020 y 2021	56	54
2022 y 2023	57	55
2024 y 2025	58	56
2026 y 2027	59	57
2028 and on	60	58

TRANSITION WORKERS (since January 1st 2010)

B) Early Retirement

- 55 years old and on
- 15 years of service and on

Year (if the worker retires)	Age minimum for Early Retirement
During the transition period	55 and on
2010 and 2011	56
2012 and 2013	57
2014 and 2015	58
2016 and 2017	59
2018 and on	60

TRANSITION WORKERS

(since January 1st 2010)

C) Early Retirement

- 60 years old and on
- 10 years of service and on
- Unemployed

Year (if the worker retires in)	Minimum age for Early Retirement
During the transition period	60 and on
2010 and 2011	61
2012 and 2013	62
2014 and 2015	63
2016 and 2017	64
2018 and on	65

Conclusions

- Exaggerate fees charged by the administrator's fund companies (Afore) were almost 25% of the workers' contributions: In 2005 they represented 20.3%.
- High rates of unemployment, and scarcity of employment with social security in Mexico explained why in February 2006, "IMSS" had 35.5 million registered workers; only 37% were paying contributions to the Afore.
- A scheme like this makes it more difficult for workers with low wages to remain active for at least twenty-five years and not have a chance to save voluntarily as their wage income's average is \$486 usd monthly.
- "A Mexican employee saves 25 years of service in the AFORE after 40 years of working." (Carlos Soto, 2006)

Fees Charged by Private Administrators

AFORE	Fee % annual
Invercap	2.48%
Profuturo GNP	1.96%
Banamex	1.84%
XXI	1.45%
ING	1.74%
Argos	1.18%
Metlife	2.26%
Principal	2.11%
Banorte Generali	1.71%
HSBC	1.77%
IXE	1.83%
Scotia	2.33%
Afirme Bajío	1.70%
Coppel	3.30%
Bancomer	1.47%
Azteca	1.96%
Inbursa	1.18%
Ahorra Ahora	3.00%

Source: Comisión Nacional del Sistema de Ahorro para el Retiro. (Consar).
March 2008.

Conclusions

- Fees and funds' performance from compulsory savings for the public sector workers' retirement, have been more supportive than those for private retirement workers.
- The results after ten years of individual capitalization provoke workers in transition to still prefer the pay-as-you-go schemes. Almost 78% of pensions taken care by IMSS almost do not exceed two minimum wages while the ISSSTE before the reform exceeded 63% of that cases; these figures show that this last institute paid better pensions.

Conclusions

- In UAM's case (a public university), the grand difference between the final salary and the amount of personal retirement funds suggests that professors can purchase additional protection to a private insurance company or participate in other programs that provide complementary pensions for the university

Conclusions

- Professors do not only value the monetary worth of their retirement funds, but also consider aspects such as the ending of health care coverage when they retire (contracted with a private insurance company), good health and full mental faculties to continue working, fear of stigmatization in society as "elderly" (employers feel that life expectancy diminishes after retirement), not getting the social recognition that comes from being a university professor, and lack of a life plan after retirement, among many other reasons that have nothing to do with the loss of a portion of their income.