

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

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### **Abstract:**

In the mid-90's, a new wave of change in retirement public programs emerged in Mexico. These new changes led to the implementation of a new integral retirement system which linked their retirement fund with their contributions to their individual account.

In 1997 there were important modifications in workers' retirement pensions law from the private sector and recently in 2007 in the public sector.

The retirement pensions of professors at public universities are part of the public sector and it is expected that within the next three years a significant flux of retirements will occur due to low rotation and a high age of these professors as well as the expectation that the new laws mean a significant reduction of their funds in comparison with the former law.

In this paper the attributions of the new law, which changes the defined benefit regime to a regime of defined contribution, are discussed as well as the monetary and after-work lifestyle perceptions and the loss of professors in the generational change. Finally it will talk about the renovation strategies in academia.

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## **Introduction**

Social security in Mexico is fragmented: there are many institutions which protect different groups in the population but all of these institutions are linked to the population by a job with a wage, this means that the protected population has an occupation in common or belongs to the same economic activity<sup>1</sup>. Each institution has a unique legal framework and requisites as well as their own benefit structure. Those institutions protect their own workers with high cost special regimes<sup>2</sup>.

There is an institution for workers in the private sector: Instituto Mexicano del Seguro Social (IMSS). Another is for workers in the federal government and government enterprises: Instituto de Seguridad y Servicios Sociales para los Trabajadores del Estado (ISSSTE). The workers in the energy sector, central bank and development banks have much better additional health and pension protection plans than the rest of government workers. The army and navy have their own institution. Workers in local governments have their own institution. Finally there is a federal ministry in charge of family protection and people who need assistance

Despite all of these institutions, only 44% of the total population benefit from some program public or private, and not even the whole working population is covered completely; of the economically active population only 45% have some type of coverage and 97% of this percentage is covered by public institutions<sup>3</sup>. (See Figure 1 and 2); with these data it can be inferred that the private insurance industry has almost no participation in this type of programs.

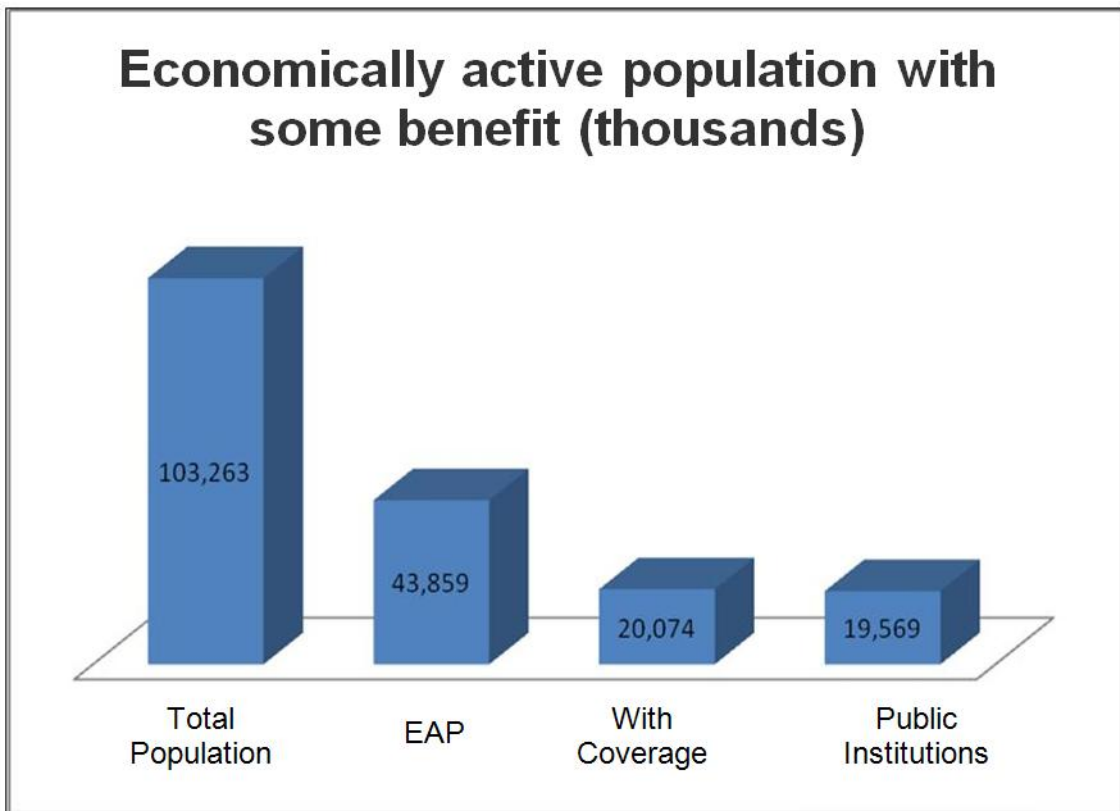
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<sup>1</sup> General population can freely join by a labor agreement with social security institutions.

<sup>2</sup> It refers to workers from Instituto Mexicano del Seguro Social.

<sup>3</sup> It is understood as public institutions: IMSS, ISSSTE, government enterprise Petróleos Mexicanos; navy, army; Ministry of Health in charge of all population

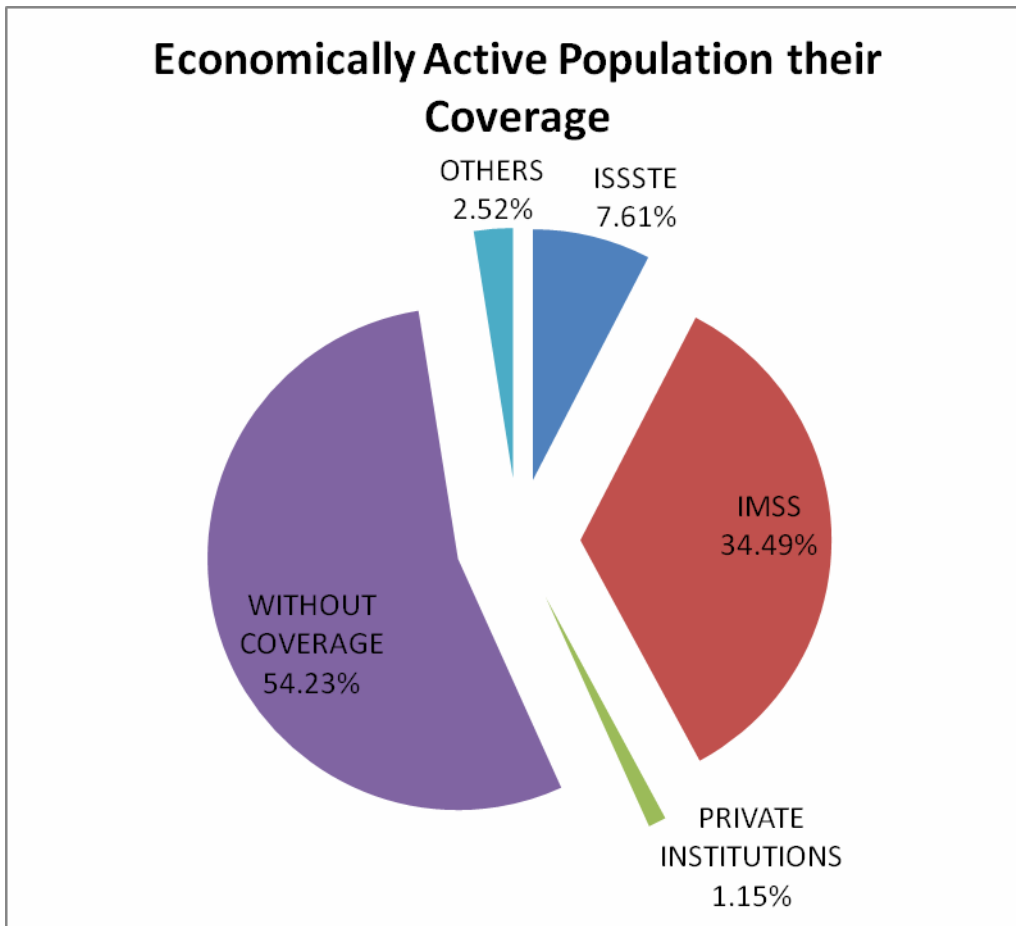
Figure 1



SOURCE: Own elaboration with data from Encuesta Nacional de Empleo y Seguridad Social 2004 (INEGI)

Also it is observed in figure 2 why the IMSS and the ISSSTE are the two most important institutions of social security within Mexico: they cover nine out of every ten persons who claims to have access to at least one program of public or private social protection.

Figure 2

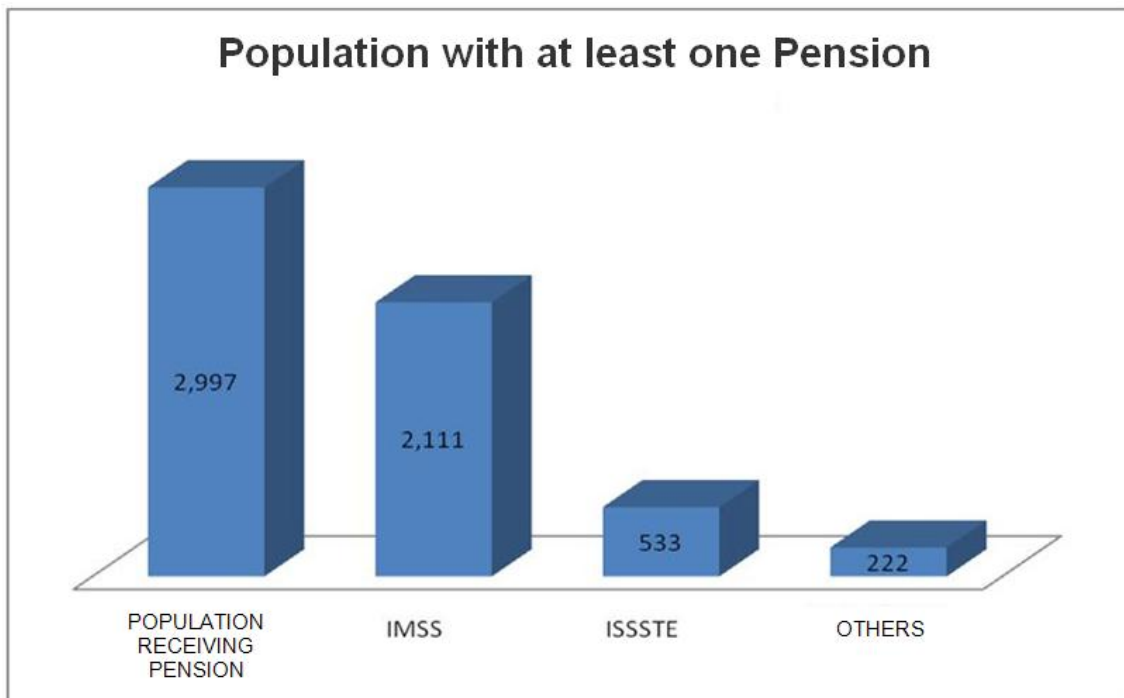


'Others' refers to decentralized dependencies, government's enterprises, army, navy and others from the public service

SOURCE: Own elaboration with data from Encuesta Nacional de Empleo y Seguridad Social 2004 (INEGI)

The same behavior is shown in pensions; these two institutions provide almost all the pensions: they are responsible for virtually 88%. One fourth of this share is paid by the ISSSTE. (See Figure 3)

Figure 3



SOURCE: Own elaboration with data from Encuesta Nacional de Empleo y Seguridad Social 2004 (INEGI)

The objective of this work is to show the outcome of the substitution, in the social security law for the workers in service of the State, approved in 2007, of the defined benefit regime for retirement pensions, by a defined contribution regime for retirement pensions and the influence on generational change and strategies for renovating the academic staff that faces one of the most important public universities in Mexico, the Universidad Autonoma Metropolitana.

This document is organized in four parts. The first one describes the old-age retirement that is overseen by IMSS: its requirements and the magnitude of the old-age pensions that is expected for new generations. In the second part the salary and retirement conditions before the reform for Universidad Autonoma Metropolitana professors, a community covered by ISSSTE, are shown. In the third part the government strategy to diminish debts caused by its own workers' pensions is presented. The fourth and final part are the conclusions, where it is explained why

generational change for the academic staff is becoming even more difficult with the new reforms.

### **Old-Age Pensions for Wage-earners in the Private Sector**

Mexico started in 1997 the reform to the regimes of disability, industrial injuries and retirement pensions financed from fiscal resources. The pensions that were of interest to the government were those related to age retirement and specially those that were the responsibility of IMSS. The reform was centered on the substitution of a pay-as-you-go (defined benefit) scheme by one of fully funded (defined contribution) individual accounts and private administration.

The IMSS reform raised the minimum contribution required to get an old-age pension from ten years to twenty-five years; the minimum age of stopping work changed from 55 to 57 years; the age of retirement remained unchanged - 65 for both men and women<sup>4</sup>.

It was established that the pension would be awarded from the worker's accumulated individual retirement fund, in which contributions are deposited by the employer, employee and government based on the wages of employee: for the old age pension there is a contribution of 6.5% of wages, the government guarantees a minimum pension equivalent to the minimum wage in force during July 1997 which is updated according to inflation<sup>5</sup>, for which the contribution represent 5.5% of this minimum wage for each day worked by the employee. There is also the possibility of voluntary savings. Old-age pensions are calculated on the basis of a minimum of 35% of contributory salary and increases according to the number of contributions that are paid in excess of the first 500 weeks<sup>6</sup>.

Ten years after the old pay-as-you-go scheme disappeared, we can talk about the performance of retirement savings funds from individual accounts (new generations will receive their pension in fifteen years at least). During 2001-2006 the retirement saving

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<sup>4</sup> Since 2006 the minimum age requirement is rising to a maximum of 24 more months until 2030; In 2030 those who retire should contributed to their fund two more years than previous generations and have a total retirement fund that can buy a private pension from a private social security institutions than exceeds the minimum guarantee pension

<sup>5</sup> Workers during transition of schemes can opt for either scheme.

<sup>6</sup> Base salary contribution for pensions is the one for the last 250 weeks.

funds did not perform any better than the rest of the industry funds, mainly explained by administration fees (Zúniga 2007: p. 26). In a study of mortality rate influence on saving funds<sup>7</sup>, it was estimated that the falling mortality trend will affect workers' replacement income ratio: ratios of 52% for workers earning a minimum wage, 36% ratio for workers earning four minimum wage, and a 25% ratio for workers earning above twenty-five minimum wages are expected in 2050<sup>8</sup>. With the current mortality ratio an income replacement wage ratio of 63%, 43% and 40% for the respective income levels is observed (See Chart 1)

Chart 1

Level	Multiple of Minimum Wage	Replacement Ratio According Mortality Ratio	
		Pay-as-you-go	Individual Accounts
Low	1.5	100%	63%
Medium	4.5	69%	43%
High	25	76%	40%

The minimum replacement ratios that the Asociación Mexicana de Actuarios Consultores (AMA 2005) calculated were about 100%, 80% and 80% for low, medium and high wages<sup>9</sup> respectively. According to the previous information, workers with low wages need voluntary savings between 115% and 147% of the mandatory quota (6.5% of the wage).

The pensions that the IMSS provided before its own law was reformed were far from satisfying basic needs: virtually 65% did not exceed two minimum wages, therefore it is not surprising that almost one fourth of retired people remain in the workforce. Although the pensions are low in the pay-as-you-go regime, workers who can opt between the two schemes should choose the first one.

<sup>7</sup> See *Pronósticos Estadísticos de Mortalidad y su Impacto sobre el Sistema de Pensiones en México*, 2007.

<sup>8</sup> Under the suppositions of 40 years of contributions, age of retirement: 65, real growth salary ratio of 0.5%, average fee of December 2005, and real performance fund ratio of 5%.

<sup>9</sup> The minimum replacement ratio is the one that allows retired workers have a lifestyle equivalent to the one when working.

Given these disappointing results, the rest of the working population, which is employed by the federal and local government, started to worry about the imminent continuation of public pension reforms.

### **Incomes from Salary and High Performance in Public Universities**

Having implemented the IMSS pension reform, the government sought to unify the mainly old-age pension programs it paid to their workers through ISSSTE<sup>10</sup>.

Teachers regarded themselves as one of the groups most affected by the imminent reform. This group, teachers in the public national education system, is one of the most powerful and influential among the population covered by the ISSSTE, which is why, in the past, their unions secured additional benefits, especially in old-age pensions. As it relates to public universities, some of them have their own pension system in addition to that offered by the social security (to cover the difference from what was stipulated in their collective-contract); others have their own pension systems fully under their responsibility; finally some of them do not have any financial liabilities from pensions because they rely totally on public systems.

Most higher education<sup>11</sup> institutions receive benefits from IMSS and/or ISSSTE; it is estimated that almost 33% have joined up their employees (administrative and academic) with ISSSTE, 17% with IMSS and the rest with both institutions or have special arrangements arising from the collective contracts or with a local social security institution.

At the Universidad Nacional Autónoma de México (UNAM)<sup>12</sup> there are 5318 full-time teachers. Their wage goes from \$1,100 to \$1,650 USD monthly. The UAM has nearly 2800 teachers; those at a more academic level have an income of about \$1,644 USD monthly. Considering that you have to achieve a PhD to be in this category, it is evident that the remuneration in public universities is low.

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<sup>10</sup> In January 2008 energy sector workers' pension haven't been reformed and it is not even on the agenda. It is estimated that this sector employed about 356 993 workers with a payroll of 13 billion dollars annually which includes, wage, benefits, retirement pension and old-age pension. This all means that a worker in this sector has an income of about \$36,415 USD, 16 times a worker earning the minimum wage has: [http://www.elmundodelpetroleo.com/articulos.php?id\\_sec=1&id\\_art=81&id\\_ejemplar=20](http://www.elmundodelpetroleo.com/articulos.php?id_sec=1&id_art=81&id_ejemplar=20)

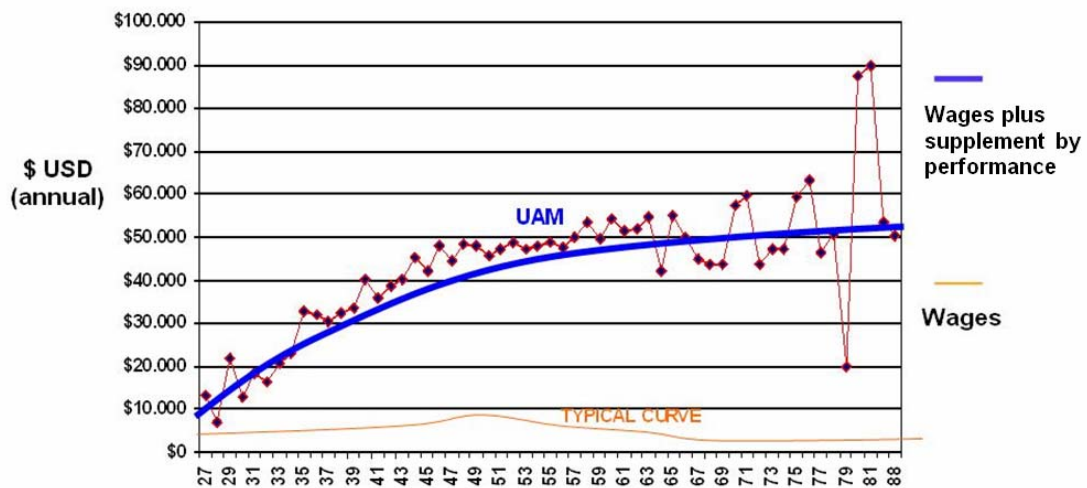
<sup>11</sup> Public universities are those in Mexico City, state universities.

<sup>12</sup> UNAM is the biggest and most important university in Mexico. Half of the scientific investigation within the country is done there. Along with UAM and Instituto Politécnico Nacional these 3 universities represent 44% of the entire budget assigned to public universities in 2008.

To keep those professors within the public universities, the federal government, since 1992, has provided economic resources to *Performance Incentive Program*, which rewards teachers who achieve quality standards, in the academic production, that every university expects from its own staff. This incentive represents a certain amount that is paid every two weeks during a fixed period of time, which might be renewable but is not considered as a wage by law.

The professors' "performance evaluation" is carried out by commissions formed from their peers. In figure 4, you can see that the remuneration of the UAM's professors, including incentives, rises with age; also a bigger variation of the income is expected after 60 years old.

Figure 4  
Normal Income's Curve. UAM



SOURCE: UAM's Dirección de Información Institucional

If a professor remains working, he would receive an annually wage of about \$19,747 USD without benefits. If benefits are included, wage would increase 65% which means \$32,582 USD<sup>13</sup>. These all mean that the

<sup>13</sup> The only benefit considered is the years of service compensation. This benefit is the most important. This percentage is gradually reached after 30 years of service. The first raise is achieved after the first 5 years of service when a 10% of the wage is increased.

substitution wage rate is 84.6% not considering the years of service compensation and 51.3% considering it. To be eligible for this right the professor should contribute to his pension fund for 30 or 28 years (for men or women respectively) without considering any age-limit. If additional salary receipts are considered, such as the “Incentives Program for Performance”, the annual wage would be about \$52,704 USD, so the reduction would instead be 31.7%! This last point is an important reason why few professors have retired: 5 during 2005 and 4 during the first half of 2006<sup>14</sup> although 45% of its professors have from twenty-one to thirty years service, and 14% more than 30 years of working experience.

The adverse conditions in terms of economic retirements at public universities as well as high uncertainty in regard to reconciling personal and professional aspirations of teachers at the time of their retirement, due to the lack of gradual-retirement programs and low generational job change, is an obstacle to the entrance of young professors and researchers.

### **Towards an Integral Old-age Retirement Scheme with Defined Contributions and Costs and Uncertain Benefits**

The aging academic staff, successful seniority programs implemented by the federal government and the imminence of a reform corresponding to that observed for employees of the private sector, combined with the government's policy of becoming involved to a lesser extent in social security commitments, led the Ministry of Public Education and the National Association of Universities and Institutions of Higher Education to conduct an assessment in 2001 to determine the extent of the financial burdens arising from the pension commitments through standardized actuarial valuations; it was found that the average age of retirement age was 52 years and not request minimum age requirement. There was in general no pension fund formed from contributions from the university and the employees; if there was, the amount was insufficient to pay its obligations. Pensions increased in the same proportion as the increment in wages. As a result of this diagnosis, the federal government has allocated additional resources - almost one billion pesos per year from 2002 - to support structural

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<sup>14</sup> According to information given by UAM's Dirección de Información Institucional.

reforms in public universities to reduce the contingent liabilities arising from retirement pensions.

Some of the important results of this "rescue program" are:

Twenty public universities amended their state pension schemes during 2003; some moved their obligations to one of the social security institutions, and others established a retention plan of personnel already in a position to retire to reduce the financial burden, while others created more pension funds with contributions from the university and the employees.

In general, universities set simultaneous age and seniority requirements of 60 and over and 30 and over respectively, the increment of pensions is linked to the minimum wage increment in the economic area where the university is located and they removed double pensions.

The UAM has not considered these possible solutions because its contingent liabilities for old-age pensions are fully covered by the ISSSTE, with the exception of retirement compensations agreed in the collective contract.<sup>15</sup>

#### New Pensions For Public Employees

Ten years later (in 2007) ISSSTE was reformed; the new system of mandatory fully-funded individual accounts arose with defined contribution and public administration headed by a newly created public body called PENSIONISSSTE.

Public employees could retire with 30 years of service or more for men and with 28 or more for women, without age limit for either; their pension was equivalent to 100% of contributory basic salary (BSC) earned by the employee in the final year as a worker. If a worker wanted to retire before reaching those ages, he or she should have contributed for at least 15 years and be aged 55 years or older; his pension would vary between 50% and 95% of their BSC, according to the number of years in service. If the worker voluntarily left service or remained unemployed after age 60 with at least ten years of contributions, would have right to a minimum pension, which fluctuates between 40% and 50% of the BSC. The pensions increased in the same proportion as the minimum wage at Distrito Federal and a Christmas-bonus was received which was equal to 40 days' work.

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<sup>15</sup> Academic and administration workers earn between 18 and 20 extra days per year when they retire.

Workers in the government financed their social security with 8% of their base salary - with a ceiling of ten times the minimum wage in force at Distrito Federal and a contribution from the Federal Government of 17.75% on that same salary. The employee paid a premium of 3.5% to finance pensions and for the establishment of reserves and 0.05% by the government.

The reforms added a minimum age for old-age retirement (65 years) and require 25 years of contributions to be entitled to a pension, for the retirement it is no longer required a minimum age, as long as your pension fund allows you to buy a pension to a private insurance company more than 30% of the guaranteed minimum pension<sup>16</sup>; pension for unemployment continues to require at least 60 years.

#### New Contributions

Now the worker will pay 10.625% of the BSC, from which 6.125 percentage points will be destined to fund pensions<sup>17</sup>. The federal government will increase its contributions; they contribute a fee equivalent to a daily social contribution of 13.9% of the general minimum wage at Distrito Federal at 1 July 1997, which is \$ 2.42 USD. In general the government pays \$0.3365 USD per worker each day to complement the pension.

Higher Education Institutions affiliated with the IMSS, ISSSTE or the local social security system can transfer their pension liabilities.

With ISSSTE's law reformed, academic staff will receive the accumulated funds in their pension funds, which are made up of the SAR 92 account; those workers affected by transition have until June 30 this year to decide whether to retire with 100% of their contributory basic salary (which represents ten times the minimum wage in effect at the first of January of 2007, \$1,391 USD), and with 28 or 30 years - women and men, respectively, without age limit. Otherwise they will have deposited in their own personal retirement fund a bonus for the voluntary contributions made before the

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<sup>16</sup> New ISSSTE law fixed as minimum guarantee pension the amount of \$278.25 usd monthly, updating this amount in the same increment as inflation.

<sup>17</sup> From 2008 to 2012 this point will be reached gradually.

reform, so that his or her personal retirement fund would be calculated starting from that amount plus the amounts, which will be added in the future

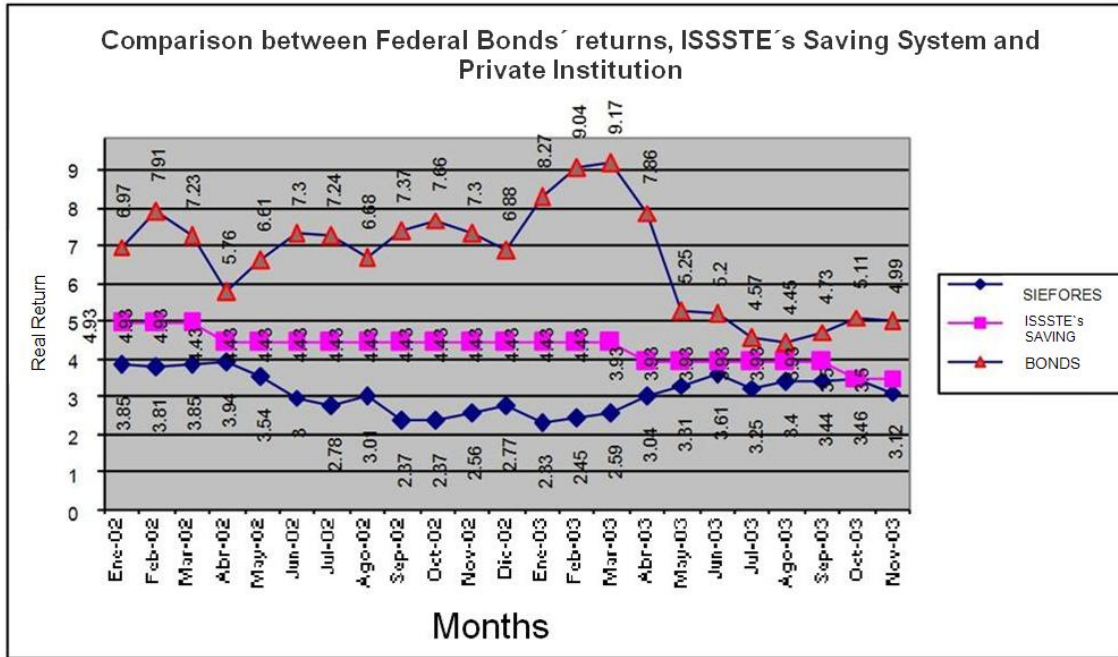
### **Conclusions**

The system of mandatory fully-funded individual accounts with defined contribution existed in Mexico before the wave of public pension reforms. In 1992 a system with defined contributions with liabilities from the federal government and voluntary for the employee of either of the two institutions mentioned was created. In this individual accounts contributions bimonthly 2% and 5% of the contributory basic salary (BSC) are accumulated in the housing and retirement sub-fund. These contributions were for the purpose of savings to complement retirement, unemployment and disability pensions. This savings system, known as the “Retirement Savings System” (SAR) was the first attempt by the federal government to significantly improve the amount of pensions for workers covered by the IMSS and the ISSSTE.

The worker could use those savings when 65 years old or had acquired the right to a pension, if he had not used the housing fund he or she would also be entitled to dispose of those resources.

Banks administered retirement funds and each housing institution administrated the housing sub-fund. The law “Retirement Savings Systems” stated that the retirement savings obtain guaranteed minimum refunds, which is why the Ministry of Finance fixed refund rates that quarterly should be superior to funds’ performance in SAR 92, which should not be less than 2% after fees. See Figure 5

Figure 5



SOURCE: Own laboration with data from Banco de México  
 SAR: Diario Oficial de la Federación. 2002-2003  
 AFORE: [www.consar.gob.mx](http://www.consar.gob.mx)

The accumulated amount in these personal retirement funds depends on economic and financial facts such as salary, age, contribution rates, contribution densities, mortality rate, nuclear family size for instance. Also the administrator fund companies contribute to those funds with fund performance as well as with fees. Another factor is the investment regime<sup>18</sup>.

Shocking fees charged by fund administrators were almost 25% of worker contributions. In 2005 they represented 20.3%. At this slow rate of decline, Mexico, would take at least 25 years to reach the 10% which some other countries with the same scheme charge.<sup>19</sup>

<sup>18</sup> In 1997 when the new pension system scheme started, it was forced to invest at least 65% in government bonds with refunds not exceeding 183 days. In 2004 2 investment funds were authorized: one with less risk for 56 years old workers and one which allows investment in shares for workers with 56 years old or less.

<sup>19</sup> See conclusion of: "Taller sobre los Regímenes de Pensiones de la Seguridad Social", organized by UNAM.

High rates of unemployment, and scarcity of employment with social security in Mexico, explained why in February 2006 IMSS had 35.5 million members in pension funds, and only 37% were paying contributions. The unemployed population will reduce their savings, since all funds pay fees related to the fund balance rather than to contributions, 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.

So far, fees and funds' performance from compulsory savings for the retirement for public sector workers have been more supportive to the worker than they would have been in private retirement funds.

With the results after ten years of individual capitalization, workers in the transition still prefer the pay-as-you-go schemes; of pensions run by IMSS almost 78% do not exceed two minimum wages while the ISSSTE before reform exceeded 63% that case; these figures show that this last institute pays better pensions. Villagómez (2007: p. 92) says in his study on the likelihood that workers have to exercise the guaranteed minimum pension, which in the scheme of individual capitalization accounts all workers with incomes of less than 3 times the minimum wage (56% of insured) have absolute certainty to do so, even if they have contributed to the system for 35 years on a continuous basis. In the event that they only contributed for the minimum period set by law to obtain a pension (25 years), 86% of workers in the system would get the minimum pension.

In the case of public universities the big 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 plans that provide complementary pensions for the university. The latter would explain, in part, why even today there is renewed interest in the private protection from the purchase of insurance or a saving design to offset the loss of income from unemployment, redundancy, voluntary separation, disability, old age or death. It seems to be a viable alternative for individuals who - either directly or as employees of a company in the productive sector - could have voluntarily saved a portion of their income for this purpose.

However, professors do not only value the monetary worth of their retirement funds, but also consider aspects such as the ending of health care coverage (contracted with private insurance company) when they retire, good health and full mental faculties

to continue working, fear of stigmatization in society as "elderly", because they feel that life expectancy diminishes after retirement, not getting the social recognition that comes from being a university professor, and lack of a plan for life after retirement, among many other reasons that have nothing to do with the loss of a portion of their income.

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