

# DEMOGRAPHIC DESTINIES

**Interviews with Past Presidents of the Population Association of America  
A Project of the PAA History Committee:**

**John R. Weeks, Chair and PAA Historian  
Dennis Hodgson  
Karen Hardee  
Deborah McFarlane**

**Interview with Marta Tienda  
PAA President in 2002**

**Interviewed by John R. Weeks and committee members at the Sheraton New Orleans during the 2013  
PAA Annual Meeting**



Dr. Marta Tienda is Maurice P. Daring '22 Professor in Demographic Studies and Research Associate at Princeton University's Office of Population Research, where she was previously director. She received her B.A. in Spanish from Michigan State University in 1972, and her M.A. and Ph.D. in sociology from the University of Texas, Austin, in 1975 and 1976. She taught in the department of rural sociology at the University of Wisconsin, Madison, from 1976 to 1987, rising there to full professor. In 1987 she accepted a position as professor of sociology at the University of Chicago, where she subsequently held the Ralph Lewis professorship. In 1997 she accepted her current position at Princeton.

**WEEKS:** We are at the Sheraton New Orleans, site of the 2013 PAA annual meeting, and this is the Population Association of America History Committee's interview with Dr. Marta Tienda, professor of sociology at Princeton University, and president of the PAA in 2002. I'm John Weeks, chair of the History Committee, and with me today are committee members Dennis Hodgson and Karen Hardee.

Marta, we have the privilege of having you here with us today. We have read the biography that was written about you.\* We wondered if you could give us a brief summary of the road that brought you into demography.

**TIENDA:** Well, I describe my life as a series of backdoors and serendipity because I had no intentions to go to college until my seventh-grade English teacher mentioned the possibility. I responded that college was for rich people, but she suggested I could get a scholarship, which for me was a major revelation. She put a bee in my bonnet that unleashed an aspiration I wouldn't have had otherwise. So from that day on, in seventh-grade English class, through high school, I aspired to go to college. I didn't know what I was going to study, but by the time I got to high school I decided I wanted to be a teacher, because in my family that was a very high-status profession. My parents venerated teachers. It was seen in the Sixties as a kind of insurance policy. So I thought, well, I'll be a Spanish literature teacher.

My decision to go to Michigan State also was serendipitous in a way. I went on a field trip to Michigan State with the Girl's Athletic Association, a student club for which I served as President. I had never seen a college campus and it was so beautiful! We had lunch there and I took a dish from the cafeteria because it had the Michigan State stamp. I promised to bring it back when I enrolled; MSU was the only institution I applied to. The counseling staff at Lincoln

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\* See O'Connell, Diane. 2006. *People Person: The Story of Sociologist Marta Tienda (Women's Adventures in Science)*. Washington, DC: Joseph Henry Press.

Park High was not very good, so even though I ranked third in a class of over 650 students, when I said Michigan State, the counselor said fine. There were places that I'd never heard of, like Princeton, where I currently teach, or the University of Chicago, where I taught in the past. But Michigan State was okay for me.

It was a major step for me, for my family, and my siblings, because nobody had gone to college. In fact, both of my parents had less than primary school training. So this was a major threshold. My parents so badly wanted us to get high school diplomas. That for them was a threshold. Anything above that was cake.

So I did study literature. I was going to be a Spanish teacher, but here was where the first seed of my interest in demography was planted. Between my junior and senior year of college my summer job in Alpena, Michigan, involved registering migrant farm workers for food stamps. That was the first year that migrant farm workers were eligible for food stamps. Migrant education programs had a longer history in Michigan. I vaguely knew about these because my entire family worked in the fields some summers when the steel mills would slow down to prepare for new automobile models or if the union declared a strike. So to get extra income, the whole family—there were seven of us by then—picked tomatoes in Monroe, Michigan, and another time we picked cherries in Traverse City. The experience was the same as that of the migrant farm stream—living in shacks with no showers and hot plates. We all got new school clothes at the end of that.

In Alpena I found myself on the other side—a real role reversal. I drove a state car with the emblem of Michigan. I turned twenty-one that summer. And I didn't know about supply or demand curves (having not taken any economics at the time). I just saw problems that needed solutions: entire families came from south Texas, where I was born, that needed jobs. And there

were growers that needed lots of temporary workers. New farm legislation passed to protect workers had unintended consequences by limiting square footage in the migrant camps. I realized both workers and growers were hurt, but what was the solution? Can't we solve this? That was my foray into social science—the need for data to solve social problems.

I heard about the census and the fourth count. What was the fourth count? And the census was counting Hispanics? I hadn't worked with census data, but it sounded really cool. The fourth-count of the 1970 census promised an estimate of Michigan's Hispanic population. There were multiple pockets of Hispanics in the state, but many were invisible. So when I returned to MSU that fall, I decided I wanted to change fields. I told my professors, I'm in the wrong field. And they said, Oh, Señorita Tienda, you had a very exciting summer. It will go away. I can still remember those words: It will go away.

Obviously it didn't, because here I am. I graduated early because I had earned lots of extra credits and received a statewide appointment working for the Cooperative Extension Service at MSU. They assigned me to an expanded nutrition program, but I know nothing about either nutrition or cooking, right? I'd been living in the dorm for four years. But I was a female and I could speak Spanish. I needed to reach out to Hispanics in the state, but where were they? How can the Extension Service serve them? The census came up again—there was the 4<sup>th</sup> count.

Before accepting the job I had applied to various universities to pursue graduate training in literature. That year the Ford Foundation began a program to increase the presence of Mexican Americans in graduate school. One of my literature professors encouraged me to apply. And I said, "Graduate school? That's so unfeminine." I was pretty girly, often wearing ribbons in my hair and dresses during winter! And he said, "No, no, no. This is serious. Look around. There are women graduate students here who are doing Ph.D.s." I realized he was right. So I applied for

the fellowship, made the finals, and received the award. The letter came during my first week of work at MSU's extension service. I was destined to study Spanish literature and decided on the University of Texas because they had the best Spanish department. It had nothing to do with demography.

On arrival to UT I transferred into Latin American Studies because I had that bee in my bonnet about fixing the world through social science, but lacked much background to select a discipline. I arrived on campus having never taken a statistics course, a sociology course, a demography course, or an economics course. Yet, that's what I studied during the four years I was on campus. So it was a rather dramatic but an important shift. And my serendipity came to my rescue, again.

To transfer I went to visit Professor William Glade, the director of the Latin American Studies Center, who sponsored my transition into the Latin American PhD program. That was stage one. During the first semester I realized that a degree in Latin American studies didn't make sense at the Ph.D. level. But, I had the good fortune of meeting Harley Browning, when I took my very first sociology course on Mexican society. I also enrolled in a course on Latin American economies and audited Economics 101.

Harley Browning was phenomenal. I made up for the lack of courses in sociology by using literature training to come up with creative approaches to what he was teaching. I remember on one paper he wrote, "Damn, you can really write. Come see me." And he was so encouraging. "Would you like to be a sociologist?" "Sure, why not." He said, "I will sponsor you into sociology." The department admitted me, but I had a lot of catching up to do, which made my second year really hard. I had to learn research methods and statistics, took the basic demography class, and a seminar that Harley offered on Latin American demography. There was

a group of Latin Americans in the department and I hung out more with them more than with the Texas Chicanos. That bolstered my interest in Latin American demography. We would study and work in both English and Spanish.

Harley's Latin American demography seminar was a stepping-stone to my early research. I wrote a master's thesis on Mexican female employment, using Mexican census data. It was not available in electronic form so I had to manually code detailed industry categories using colored pencils for all of the Mexican states. It was a very tedious, error-prone process. That year I also learned how to run a regression.

Harley was the best mentor I could have had. He was selfless but always asked probing questions. He mentored me in ways that transcended the classroom. I learned about life, art, and music. He would invite students to his home for dinner just to peel us from our work and teach work-life balance. It was a pivotal point in my life and I'm forever grateful for his friendship and guidance. He was pivotal to my success.

**WEEKS:** Who were the other members of your dissertation committee?

**TIENDA:** Other members of my committee were Terry Sullivan, who had just come back from the University of Chicago, she was an assistant professor at the time; Dudley Poston; and Omer Galle, who joined the faculty that year. And there was Alan King, the labor economist I had studied with. He had been the second reader on my master's paper and gave me valuable feedback.

I benefited so much from all of them. I still keep in touch with Terry [now president of the University of Virginia] because we collaborated on a major study of Texas' college admissions, and regularly see Dudley Poston at PAA.

**WEEKS:** When you were in grad school in Texas, was there an international focus to the program at the time?

**TIENDA:** Yes, although I didn't realize it at the time, because I had no base for comparison. The Latin American Studies Center was a big draw and that was one of the reasons I went to Texas, They had a strong Spanish department, with the best instructors in Spanish peninsular literature, which I loved. Literature was my introduction to sociology. But they also had a big Latin American studies program. The Texas Population Research Center had the census collection for most Latin American nations, which was convenient, because I later worked on Peru for a dissertation project.

Today it's easier to forge research ties with in-country collaborators, but in the early 1970s international consultants held an upper hand on some matters, including the data collected by the teams they advised. So I learned about a Peruvian multi-purpose survey in a population economics course I took with Michael Conroy. Data access was simple—just ask the consultant! It was that simple. I used the data to write a paper about the labor force activity of children in Peru,(which was published shortly after I took my first job).

For the dissertation I needed more information about the primary sampling units, which was not included in any of the documentation that was brought into country. In the process of trying to recover that information—so I could develop some weights and then append characteristics of the sampling units for the social contexts that they represented—I discovered the data had been bootlegged. It was brought into the United States without permission, and this presented an ethical crisis for me.

I was rather far along in the dissertation process and I had already defended my proposal. I had a job offer from Wisconsin when I discovered that my data has been bootlegged. So I had a

heart-to-heart talk with Harley about this, and he explained my two choices: Either write a theoretical dissertation or use the data, but make sure that you share your results with Peruvian researchers. After some thought I realized that I couldn't write a theoretical dissertation. I needed numbers.

After about a week of sheer anguish about what to do. I made a promise to myself that everything I did from the data I would distribute in Peru, which I did. Although it was inappropriate to bring the data in without permission, I couldn't correct something that had already been done. I reasoned that the data wasn't going to be analyzed much in Peru and I was right about that, because a few years later I visited Peru's department of labor to request the PSU information. It was stored in some back room boxes and they were happy to share the sampling unit information. In turn, I shared all of my published work from these data with Peruvian colleagues. They translated it and demography students used it as a template for modeling.

Subsequently I co-taught a mini-seminar at La Pontificia Universidad Católica with Alberto Palloni based on a mortality project on which we collaborated. I feel that I gave back to the country from which I benefited in my early career.

**WEEKS:** You mentioned your first job there at the University of Wisconsin. How did that come about? Was that the place you wanted to go?

**TIENDA:** Wow. In the mid-1970s it was unusual for students to go on the market as early as I did. I had just defended my dissertation proposal in November 1975 when Harley learned about a job at Wisconsin. I had already applied to several places, but Wisconsin had an early interview process and I was one of two lucky people selected for interviews in the department of rural sociology. I had taken classes with Alejandro Portes (a UW graduate), but he had left for Duke. Arch Haller, Portes's advisor, pushed to interview me. I didn't have the publication record that

the other candidate had at the time, but I did have experience working with the cooperative extension service at MSU. Those six months I worked in the nutrition service unit served me well for a job that was a dual appointment in rural sociology and the Agriculture College experiment station. I had to give two talks—one in sociology and one in experiment station. I think they helped tip the scales in my favor because of my prior experience.

It turned out my short job stint at MSU proved rather pivotal; once again, serendipity to my advantage. My whole life has been laced with these kinds of lucky connections. Having just defended the proposal and lacking empirical results, I needed advice for the interview. What I remember was Harley Browning saying, “When you present your work, try to give a natural history of how you got interested in the problem.” And I give that advice today to my own students, because our interests evolve, and something happens along the way that reshapes them. For me, the sequence began with the MA study about the labor force activity of women and how that relates to development. Then I analyzed the labor force activity of children, which led me think about families as unit of analysis for understanding market behavior.

My dissertation was about how age and economic dependency changes over the family life cycle and how families cope with the demands of family formation by inviting other relatives to co-reside. Some of them generate income; others provide in-kind support so parents can work outside the home during peak dependency burden. It was all about the expansion of the ideas that arose in Michael Conroy’s class when Steven Enke was writing about the costs of high fertility for development; I was also influenced by Coale and Hoover’s study of population growth in India. I wanted to understand where the impact of high fertility was realized. Framing the development of my ideas as a “natural history” gave me a way to think about the problem. And that advice I give today to many of my students.

Two other things happened at Texas that were decisive for my training. One of them was learning how to convert a vague idea into the right question. “What’s the question?” Harley tirelessly repeated himself. Invariably to the question what are you interested in? I would answer “I’m interested in the relationship between—and he would interrupt and say “No, don’t talk about a relationship. What do you want to find out? Give me the question.” Now it is I who consistently and repeatedly ask students, “What is the question?”

The second part of my training that enabled my success, despite these huge holes in my training, was the practice of assigning research proposals rather than term papers as course requirements. And during the period that I was in Texas, they had eliminated the general exams and replaced them with course distribution requirements. Research proposals required a clear statement of the problem—the research question—as well as the methods strategy. And that training became the most critical skill that allowed me to land running in a research university, where opportunities to secure grants were rather plentiful at the time. For example, the Department of Labor posted a sole source mechanism to look at the Hispanic population. I hadn’t done any research about the US. So I consulted with Arch Haller for some studies in ethnic stratification. I wrote my first extramural proposal and was funded, so that began my work on the Hispanic population. Fortunately I knew *how* to write a proposal. And, I would finally learn a lot more about the US census.

I put together a collaborative team, which is my style, because I didn't pretend to know how to answer all the questions myself. At the time there were not many people with interests in Hispanics at Wisconsin. But I identified colleagues from other disciplines and universities and launched my first collaborative research project with the DOL funding. My continuing interests

in Peru resulted in grants to NIH grant and NSF during my second year at UW; both were funded but I accepted the NIH because it was more generous.

There was so much to do in the early years, especially given the big substantive holes in my training. I put in very long hours. I knew all the janitors: the day janitors, the night janitors, the weekend janitors. But that's what was necessary for my big catch up. But what can't be filled in with long hours is the way of thinking that Harley instilled in us, about asking the right question and understanding why it is important.

My policy training is all on the job; it began when I received foundation funding because most want policy implications in addition to strong research design. I realized most sociology training does not teach students to think that way: rather, you ask a question, you answer it, then you publish it, right? It resonated with me because of the origins of my interest in social science, which was rooted in problem solving for farmworkers in Michigan. That was my introduction to unintended consequences—a basic premise of sociology. It's a concept core to teaching social policy and immigration, among other topics.

**WEEKS:** And what took you from Wisconsin to Chicago?

**TIENDA:** Wisconsin to Chicago was an important transition for me. Most of my work was not specifically about rural sociology, but fortunately Wisconsin's graduate program was joint between the general and the rural department and there was the Center for Demography and Ecology—a natural intellectual home. My work on the Hispanic population involved collaboration beyond the department, but facilitated by the demography center. This was important when I was writing the 1980 census monograph project. It too was nearing completion. Except for Alberto Palloni, I did not have many people to collaborate with in the department and none in the rural department.

Personal reasons also converged. I was separated at that time and Madison was a tough place for a single mother. California schools were recruiting hard, but Bill Wilson invited me to serve on the advisory committee for the urban underclass study at the urging of the Ford Foundation. They had a project officer who understood that Hispanics were on the ascent. Chicago was in replenishment mode at the time; based on my role on the committee, Bill Wilson said, “We may come after you.” I indicated that I was going to interview at UCLA and spend a visiting period at Stanford. His response: “Well, don’t do anything until Chicago has had an opportunity to act.”

I took a six-month leave from Wisconsin, which gave me space to make my decision without the pressure to stay, stay, stay. But I needed to go, go, go—for lots of reasons. Moves are good because we have to clean out desks and cabinets and say what’s really important. And it also gives you time to regroup, to reboot your system without erasing the memory. And as it turned out teaching at Stanford was a really important experience because I offered a seminar on the Hispanic population before the book was released. I learned that my presence at an institution with few Hispanics was highly symbolic for both minority undergraduate and graduate students—something I had not experienced at Wisconsin. Many felt that they didn’t belong, that they were outliers in the field. My presence legitimated them, I was told after a department seminar, where they saw someone just like them, with big earrings and high heels, yet not intimidated by any technical questions. I explained that I wasn’t a token minority in residence, but a sociologist like other faculty members. And that proved important especially for the female graduate students. I had been oblivious to the importance of serving as a role model for emergent scholars. I learned about myself when I left Middle America.

The decision between Chicago and UCLA proved difficult because I knew that it would be very consequential for my research agenda. I worried that if I went to UCLA identity politics could constrain my work in ways I could not control. And there was no population center. At Chicago, as Bill Wilson said, “Marta, nobody cares about your background. What matters are your ideas and your work. It will be more consequential that you’re a female here than that you’re Mexican.” His words proved true, though things changed a lot during my time there.

Chicago was a wonderful job decision for several reasons. First, Doug Massey came at the same time, so we were partners in crime on a mission to rebuild population studies at the university. In 1987 there were three population centers at the University of Chicago. One was led by Don Bogue, whom I replaced on his retirement. He was generous: he gave me his office, his furniture, everything. A second was led by Evelyn Kitigawa, which Doug Massey was hired to take over. And, then there was the new population center housed at NORC [National Opinion Research Center], with Bob Michael and Bob Willis in charge. Before arriving Doug and I had already decided to create one strong center; we agreed to pool our start-up funds.

Significantly, both Doug and I came from institutions with strong population centers. At Chicago we literally had to regroup, and that was a very interesting period. At the Chicago PAA meetings before Doug and I arrived, the Community Families Study Center, hosted a reception for me. Clifford Clogg, who had been a research assistant for Bogue, asked: “What is one of the first things you are going to do when you go to Chicago?” I should have been a little more tactful, but I said, “Well, I am going to eliminate the center and join forces with Doug Massey, and the economists. We’re going to rebuild and create one strong center.”

The rest is history, but no university needs three population centers, right? And so we did build the center. We saved the library and Phil Hauser’s collection by merging the materials with

with the NORC Library, where the Hauser Collection maintains a separate identity. All of Phil Hauser's holdings had been deposited at the Regenstein Library, so it took some work to retrieve them, but I had good backing from Ed Laumann. That was phase one. For the second round we built the data center and a data depository. When I saw computer tapes in David Grusky's office, he explained, "It was every man for himself when I got here." It was a great time to participate in institution building with Doug Massey. From sociology, being at an institution with deep theoretical was not only very satisfying, but it really helped me think about how I combine sociology and demography.

I spent ten great years at Chicago. I was chair of the department when I left. I edited the *American Journal of Sociology* while I was there. I learned a great deal about the field and its history. I consider it an extraordinary opportunity to have been there when Jim Coleman was writing his major theoretical treatise and Bill Wilson was spearheading the urban underclass study and Doug Massey's Mexican Migration Project was in full throttle. Chicago's impact in population is as deep as it is wide, but all programs go through ups and downs. Department histories are kind of cyclical but I was fortunate to be there at one of the peaks.

**WEEKS:** And so then what took you off to Princeton?

**TIENDA:** Well, it should be clear that family is the really important part of my life. I left Wisconsin for family reasons, and my decision to leaving Chicago was family-triggered. The Lab school was not working for my sons, so I quietly began to explore options. It's complicated but I had been speaking with Northwestern. I kept this really quiet because I didn't want to be a piece of meat on a Dutch auction.

Tom Cook, a social psychologists from Northwestern whom I got to know from the MacArthur Network on Adolescents, began discussions both for a school that would better serve

my son's needs and an appointment for me. I pull my son out of the Lab school to live with my sister in Michigan while I explored options for a family move where we would all be better off. I'm going to look for a job. I'm going to move.

My attitude has always been my job had to work for all of us or for none of us; otherwise, we do family migration. With Tom Cook's guidance, I figured Northwestern would be a good change and could be done quickly. It's right up Lakeshore Drive. I was on the Kaiser Family Foundation board at the time, and serendipity knocked at my door again. The chair of the Kaiser board was Bill Richardson, then president of Johns Hopkins University at the time, who overheard me tell Drew Altman [president of Kaiser Family Foundation] that I was planning to leave Chicago and head to Northwestern. That evening Bill Richardson called my room. "Marta, I overheard you speaking with Drew Altman and that you were planning to leave Chicago." I said, "Yes, it isn't working for my family, and I need to get out of Hyde Park." And he said, "Well, have you considered Princeton?" I had actually called my good friend Jane DeLung, who explained that Alejandro Portes had just been hired, so they would not be interested. Bill Richardson was unimpressed and asked for my CV.

Shortly after I received a call from Paul DiMaggio, the incoming chair of sociology. He wanted to know if I would be interested in giving a lecture at Princeton. I did not realize that that Charlie Westoff was planning to retire within two years, so the Dean had given them permission for a bridge appointment. I visited; I lectured; I received an offer. Then the boys visited and they weighed in. Princeton allowed me to bring my family back together. They loved Princeton, and we lived very near campus. Timing was propitious because Luis was beginning ninth grade, and Carlos was beginning second grade. Luis needed to stay in one place for four years. I promised not to move him once he started high school. So family priorities and

serendipity provided me the opportunity of a lifetime—an incredible chance to strengthen family life and my career. It was a no brainer: Princeton’s Office of Population was a huge draw, as was the Woodrow Wilson School.

At Princeton I reunited with Sara McLanahan, who had been my colleague at Wisconsin, and joined Alejandro Portes, who had been my professor at Texas. Doug Massey, my former colleague at Chicago, also reconnected at Princeton.

I arrived at Princeton in fall of ’97, and was consumed writing the NIH center grant renewal in summer of ’98 because I began a term as director. It was a tough assignment because I was unfamiliar with staff and students affiliated with Princeton and the grant requested this information. But what was satisfying is that OPR was competing for center grants with Wisconsin and Chicago, my two former institutions. And it gave me an enormous amount of satisfaction to see that, not only did we receive an outstanding score, but our budget was not slashed. The hard work paid off; it was teamwork at its best.

**WEEKS:** Now Marta, you mentioned you were there a few years at Princeton when you became president of the PAA. What had been your involvement in the PAA up to that point?

**TIENDA:** I had served on the board of directors when I was at Wisconsin, so that was the main involvement that I had with the PAA. I attended the meetings regularly, unless, of course, life interfered. Like the time that Luis contracted chicken pox when I was supposed to attend a board of directors meeting. My first reaction was to panic. I called Paul Demeny apologetically to explain my dilemma, but he was warm and supportive. He said, “Marta, this will not be the last time that your children interrupt your professional plans.” I was so relieved he was that understanding, and now when I see post docs and graduate students and young assistant

professors freaking out about family issues and assure them that all is well; that family is priority; and that they will be inconvenienced again.

**WEEKS:** What would you think about your research over the course of time, from Texas on through to Princeton? What do you think is the most important and your favorite piece of research publication?

**TIENDA:** That's a hard question. I think working on the presidential address for PAA that's been republished in other venues and used by political scientists—that for me was a surprise.<sup>†</sup> I was pleased to learn that some of my colleagues from Politics reported used my PAA address for teaching. I remember Harley reminding me about not writing an overly technical paper, which I had no plans to do. But how I came up with the idea yet again illustrates how serendipity influenced my career.

I was serving on an advisory committee that Bill Wilson chaired for the Robert Wood Johnson Foundation, which took me to Harvard a couple times a year. At one meeting a committee member mentioned noncitizen voting. Was he kidding? This was news to me, but I did not pursue the idea until by accident while searching for some data about Chicago I saw a graph showing how Illinois lost seats in the US House of Representatives over time, despite being a traditional destination for immigrants. I wondered about representation and how immigration has shaped national discourse over time. I began reading non-demographic studies about the terms of belonging, representation, apportionment, and the like.

In the PAA address I sought to illustrate how the US census had become politicized and how immigrants had been used to change the balance of power through representation in Congress, which is how I tied electoral demography to the social contract. I had the great fortune of working with a phenomenal assistant named Michael Maltese, with whom I still stay in touch.

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<sup>†</sup> Marta Tienda, 2002, "Demography and the Social Contract." *Demography*, 39(4): 587-616.

He helped me on the literature searches and he also supervised my swat team of undergraduates to prepare data from the historical censuses so that I could apportion the foreign-born population during the late nineteenth and early twentieth centuries. This required hand coding the foreign-born according to citizenship status from the published census volumes and generating excel sheets so that apportionment formulas could be applied to represent various scenarios. What if Congress had actually restricted apportionment to citizens, excluding the foreign-born citizens from representation? Etc. This was a very painstaking process that Michael Maltese orchestrated.

So in a sense, my PAA presidential address sought to elaborate on the historical context within which we can understand some of the current debates about immigration. And there's more to come on that front, as the immigration debate unfolds and as the second-generation comes of age in an aging society. As organizer of the program, I was also preoccupied with transitioning to an online submission regime.

During my tenure as a demographer—I graduated in '76; my first PAA meeting was '77—I have seen an important transformation in demography as an interdiscipline. The substantive scope has been broadened to represent health more broadly; to focus on social and biological aspects of aging; to include children and youth as a substantive domain for inquiry; and to acknowledge the enormous importance of applied demography and links with social policy. Over time the field has witnessed greater attention to international migration. For too long migration was like a stepchild of demography because it did not lend itself to this formal modeling or prediction in the same way as mortality and fertility. So migration was less predictable in terms of its onset, its changes and reversals. What causes reversals and why do streams persist when economic conditions deteriorate?

For a while geographic studies had become somewhat marginalized and many geography departments were eliminated in the 1980s. New spatial software has reinvigorated geospatial analyses within population studies as demographers have begun to use spatial imagery to understand environmental problems such as deforestation. This has allowed more nuanced attention to context and behavioral changes.

Digitization of historical censuses, initiated by the 40-50 project (for the 1940 and 1950 censuses) at Wisconsin, but subsequently brought to scale by Ruggles at Minnesota has enabled great opportunities for studies in historical demography. It's been interesting to see how some of the patterns we think are new today were actually pervasive at the turn of the last century. Digitization of the US censuses has magnified the opportunities for historical research on migration, on family structure, and on race and ethnic composition of the US population. The Minnesota population center has done a great service to the discipline by also digitizing many, many international censuses.

During the time that I have been active as a demographer availability of data has exploded and computation costs have plummeted. What a generational difference—from using IBM cards and spinning magnetic tapes to loading tons of data on a thumb drive! Technological developments now allow demographers to process massive amounts of data; but, I always warn that the cost of thinking has not gone down. .

**WEEKS:** I think maybe we have one minute to squeeze in one last question. Where do you see the field going?

**TIENDA:** I don't think there's one direction for the field to go, but I do see that there is a growing interest in the merging of social context with biology. The nature/nurture debate was kind of bifurcated, and made for some polemical lectures in the past, with little in between. I

think that space has closed and there is a lot more to do because we're just beginning to understand gene/environment interactions. I'm reminded of this from the memorial service last night of Dick Udry, who was such a methodological pioneer and was so far ahead of his time, as Kathy Harris aptly noted. I was on the study section that approved his study that demonstrated links between specific maternal hormones during a given trimester and expression of behavioral tendencies (such as femininity and masculinity). Over time we have seen how genes interact with environment in ways that permit new understanding of causal mechanisms..

I see this also in some of the research that's being done on health at Princeton. Early onset of childhood diseases—for example, exposure to viruses or having tuberculosis—may not manifest early on but can express in later life and have longer-term consequences for physical wellbeing. So I think our ability to collect biogenetic data to better understand how gene-environment interactions unfold over the lifecycle as one of the important new frontiers. More generally I see a great deal of interest in health and well being that includes both cognitive and biological processes. These examples indicate how demography has become even more of an inter-discipline that it was historically..

Population aging is a burgeoning field, but advances in understanding its social and economic significance require going beyond demography, and asking what is it that produces these variations at later ages of life? Some of it is social, some of it is behavioral—food consumption over the life course, etc. Some of it has to do with poverty. But there's so much more that we don't understand. Still, I hope that population aging research does not deflect attention from young people, who represent an investment in the future.

I too have become fascinated with age structure. Harley once said that age structures were fundamental for understanding societies and for realizing the elegance of demography. I didn't see it at the time. I wish I had known then what I know now, because he was so right.

*Transcribed by Michael David Raso, 2013*

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